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H I S T O R Y
O F T H E
O R I G I N O F M E D I C I N E :
A N O R A T I O N ,

Delivered at the
Anniversary Meeting of the MEDICAL SOCIETY of
LONDON, January 19, 1778,
AND PRINTED AT THEIR REQUEST.

To which are since added,
VARIOUS HISTORICAL ILLUSTRATIONS.

B Y
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AND
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IN LONDON.

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OF THE HISTORY OF MEDICINE

AND OF THE HISTORY OF THE ARTS

OF THE MEDICAL SOCIETY OF LONDON

AND OF THE MEDICAL SOCIETY OF LONDON

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I N T R O D U C T I O N.

SO intimate is the connection of medicine with arts and sciences in general, that the history of its origin and progress must necessarily include the progressive improvement of mankind in useful and liberal knowledge. In tracing and ascertaining this progression, those eminent persons should be introduced, whose important discoveries have rendered them benefactors to community; and, consequently, all investigations, that have peculiarly contributed to enlarge the knowledge of medicine, would become an essential part of its history.

In order to exhibit more distinctly such a variety of objects as a plan of this kind must comprehend, it would be proper to divide it into periods, which form certain particular æras in medicine, and are connected with some important circumstances in the general history of the world, each of which might contain four divisions in the following order :

1. Of medicine in general.
2. History of discoveries in medicine.
3. History of benefactors to medicine.
4. History of arts and sciences in general.

I. The

I. The first period to commence with the creation, and end at the Trojan war, 1184 years before Christ; and to be comprehended under the title of NATURAL and FABULOUS MEDICINE.

II. The second to begin with the Trojan, and end with the Peloponnesian war, at the time of Hippocrates, about 400 years before the Christian æra, and 50 before the birth of Alexander the Great: this to be distinguished by EMPIRICISM from NECESSITY.

III. From Hippocrates to the destruction of Carthage, at the time of Serapion, 146 years before Christ, including DOGMATISM.

IV. From Serapion to the birth of Christ, about the time of Themison, in the reign of Augustus; in which period would be included PROFESSED EMPIRICISM.

V. From Themison to the time of Galen the physician and peripatetic philosopher, who flourished under the emperor Marcus Aurelius, about 160 years after the birth of Christ, and founded METHODISM.

VI. From Galen to the time of Paracelsus, who was contemporary with the emperor Charles V. and flourished in the beginning of the 16th century; which period might be distinguished by PERIPATETIC DOGMATISM.

VII. From

VII. From Paracelsus to Harvey, who lived in the reign of Charles I. near the middle of the 17th century, and discovered the circulation of the blood, the **CHEMICAL DOGMATISM.**

VIII. From Harvey to Boerhaave, who flourished early in the 18th century, the **MECHANICAL DOGMATISM.**

IX. From Boerhaave, who introduced a new system, which included all the others, to the present time, **GENERAL DOGMATISM.**

As the opinions of mankind are no more uniform than their constitutions, it cannot be supposed, that any of these systems prevailed universally at any one period; it was sufficient to ascertain when each of these principally flourished, and the improvements in the healing art which resulted from them.

Whilst I had this work merely in contemplation, I was chosen to deliver the anniversary oration to the Medical Society of London, of which I am a member; and as I had not then any other subject of disquisition in view, I resolved to enter upon the present: this I did with less hesitation, in order to submit to their judgment the execution of such a part of my plan, as could be comprised within the limits of a discourse, which includes the first chapter of the first book, presuming that nothing could prove more interesting to the professors of the healing art, than a

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knowledge of its origin, which forms the most natural introduction to the history of its progress.

In this attempt I have availed myself of such collateral information as modern history affords, respecting the rude state of nations posterior to these ancient times: the progress of the mind from a state of ignorance to that of science, though accelerated by various contingencies, has been attended with a wonderful similarity in every nation of the globe, and many primeval customs can only be satisfactorily elucidated by a comparison of them with those of rude nations, which more modern discoveries have afforded. This I have experienced in many instances, where practices among the ancients have become so obsolete in civilized nations, as at length to be totally discredited by authors of eminence: but the striking resemblance in the rude nations since discovered, has allowed me to exhibit the history of ancient medicine with a degree of precision and certainty, that would have been otherwise impracticable.

The limits usually allotted to the occasion upon which the present performance was delivered, obliged me to contract or totally omit many arguments necessary to elucidate and confirm the facts which were offered, and of course to compensate this defect by the aid of notes, which I have introduced more largely, in order to open a more varied and philosophical view of the subjects of discussion, to render them both
pleasing

pleasing and instructive, and at the same time to connect them with the general history of mankind.

From the resolution of the Society to have this oration printed, many of the notes were added whilst it was in the press. Some of them I had selected many years ago, during my studies, from authors which I had casually met with, and from whom I had taken extracts, without due attention to the editions I had consulted. Sometimes I have adopted the words of an author, without recollecting to whom I am indebted for them; a liberty, however, that will not frequently occur. I shall rather be liable to censure for multiplying quotations; but it is not from ostentation that I have made such frequent and copious extracts. I trust, that by this I have not only given authority to the sentiments, but also relieved a subject in itself rather dry and unentertaining.

In the subsequent chapters, which complete the history of medicine prior to the Trojan war, I shall exhibit more particularly the spirit of those times, when I shall have occasion to apply the previous authorities to elucidate the sentiments I have adopted; and I flatter myself the labour I have taken to describe the true state of medicine in those dark periods, will not be unworthy of the reader's attention.

In these views principally I have deviated from Le Clerc, who has given the most learned history of medicine, as far as he has conducted it; though its accuracy

curacy is not enlivened with the general history and spirit of the times ; nor yet do I recollect, that he has any rival in this view, either prior or posterior to his excellent work. In thus connecting a diversity of objects, our investigations are accelerated, and our perceptions expanded : the mind, says an ingenious writer ^a, not only becomes vigorous, but elegant, from the frequent and extensive use of its powers ; what it hath begun, it will have the sagacity to finish ; and what perfected, the spirit to refine. For want of this liberal and vigorous cultivation of the arts, the mind has gradually become enervated, and has relinquished that sublimity and refinement which it had once acquired ; and hence it is, that even the places which gave birth to Leonidas, Miltiades, Alexander, Sophocles, and Plato, have sunk again under a barbarous yoke, and been involved in the same cloud of ignorance from which they were once delivered. How much superior were the people of Asia formerly to ours of the West, in all the liberal and mechanical arts ! But how nobly, says a celebrated writer ^b, have we redeemed our lost time ! The countries where Bramantes had built a cathedral, and Michael Angelo adorned it ; where Raphael had painted ; where Newton had calculated infinities ; and where Cinna and Athalia were written ; are now become the first countries upon earth.

^a Young's Athens.

^b Voltaire.

B O O K I.

OF NATURAL AND FABULOUS MEDICINE,

WHICH COMMENCES WITH THE CREATION,

AND ENDS AT THE TROJAN WAR.

TH E learned writer^a, whose work I have already mentioned, begins his “*Histoire de la medicine*” at the deluge, from a presumption that arts and sciences would likewise perish in the general wreck of the world. And though this hypothesis appears more natural than that of a later author, who enters so minutely into the medical knowledge of the antediluvian world, as to furnish a list of their physicians; yet, without adhering to either of these arrangements, I have supposed medicine coeval with man, for reasons which I shall hereafter adduce.

That mankind, before the deluge, had made some progress in the arts, the construction of the ark is a convincing proof, as well as the domestication of animals, and the manufactory of metals, which were introduced anterior to that awful event, and necessarily infer a considerable degree of civilization.

^a Le Clerc.

Noah and his family must, therefore, have preserved some antediluvian improvements; and his conduct immediately after the secession of the flood, demonstrates a mind highly informed: he gave the most useful instructions to his children, and planted the vine at the bottom of Mount Ararat^b, Baris, or Luban, where he resided for a long time: the very plantation of the vine seems to imply a purpose of residence; and the Sacred Writings do not mention the patriarch's ever quitting the place, nor of any of his sons departing from it, until the general migration. According to Epiphanius^c, they remained in the vicinity of Ararat for five generations, including a space of 659 years; and a celebrated mythologist further adds^d, that during the residence of mankind in these parts, we may imagine there was a season of great happiness. They lived for a long time under the mild rule of the great patriarch, before laws were enacted, or penalties known.

I have concluded the first period with the Trojan war, not only on account of the estimation it maintains in history, but likewise from the peculiar state of

^b The region about Ararat may be esteemed as nearly a central part of the earth. See Bryant's Analysis, V. 3. p. 20. Tournefort, who visited mount Ararat, describes its vale as the finest in Persia. The people believe that their vines are of the same sort with those which Noah planted; they yield, however, excellent wine. Voyage into the Levant, V. 3, p. 178.

^c Speed Euseb. Chron. p. 8. Hæres, L. 1. p. 5 and 6.

^d Bryant's Analysis, V. 3. p. 21, 22.

medicine at this time, which admits of a very characteristic division, and may be termed FABULOUS AND NATURAL MEDICINE.

From the Trojan to the Peloponnesian war, which includes 753 years, no records of medicine have been preserved; but from the advanced state of it soon after this time, we may infer, that a considerable progress had been made, within the preceeding periods, in the *Æsculapian* temples, particularly at Cos, Cnidos, and Rhodes. From the first, Hippocrates drew his origin, and its records give us reason to suppose he acquired much information; but we have no account of this celebrated father of physic from contemporary writers, nor from those that lived soon after him. The prodigious acquisition of knowledge contained in the books ascribed to him, superior to what we find in Homer, affords an evident argument for separating the states of medicine at the Trojan and Peloponnesian wars.

Many discoveries that were familiar in the second period, were unknown in the first, particularly that of venæsection; and dissections of animals for the purpose of anatomical investigation, were now practised, which had not been admitted prior to the Trojan war; neither had the internal exhibition of medicine been generally adopted. Other arts were in a similar state of rudeness, and so was their domestic œconomy; they had indeed learned to domesticate animals, and had bridled the most noble species, which they appropriated to

to their chariots, for no cavalry were mounted at the Trojan war, nor had they acquired even the art of shoeing their horses^e.

But there was a circumstance which tended, in a more conspicuous manner, to distinguish these two periods. About two hundred years before Hippocrates^f, Thales^g and Pythagoras^h brought philoso-

* Vide *Archaeologia*, vol. 3. p. 35. by C. Rogers, Esq; and Mr. Pegge's observations, p. 39, with their numerous authorities. The latter observes, that there were but few horses amongst the Hebrews before Solomon's time, they having no cavalry in their armies (*Calmet Dict. v. Horse*): those they had came from Egypt (*Deut. xvii. 16. 1 Kings x. 18. 2 Chron. i. 16, 17. ix. 28*) where they had long abounded (*Deut. iv. Gen. xlvii. 17. Exod. ix. 3. xiv. 9*); and in that soft country there was little or no necessity for horses to be shod. The Canaanites and Syrians also had horses and chariots (*Deut. xx. 1. Josh. xi. 6. xvii. 16. 2 Sam. viii. 4*). In appearance the Canaanites did not shoe their horses, "Then were the horse hoofs broken by the means of the prancing, the prancing of the mighty ones;" *Judges v. 22*. for had the horses feet been shod either with iron or brass, they could not have been broken with prancing. Confer. *Polyd. Virg. II. c. 12. Stewech. ad Veget. p. 132. Feithii Antiq. Homer. iv. c. 11. Sir Tho. Browne, Vulg. Err. v. c. 13. Is. Casaub. ad Aristoph. Equit. 549. Montfauc. Antiq. iv. sec. 50. Appian, de B. Mithrid. p. 371. ed. Tollii.*

^f Hippocrates died 361 years before Christ, aged 99 years; he flourished in the time of Pericles with Socrates, Democritus, and Thucydides, a period famous for the second plague of Athens, when each man was permitted to marry two wives, and Socrates was one of the first who took advantage of that privilege. Blair.

^g Thales died 548 years before the Christian Æra, aged 96; he flourished when Solon was Archon and lawgiver of Athens; a period famous for the successes of Nebuchadnezzar against Jerusalem and Tyre, the first 587, and the second 572 years before Christ.

^h Pythagoras died 597 years before the Christian Æra; he flourished about 538 years before the birth of Christ, a period famous by the destruction of the empire of Babylon, that city being taken by Cyrus.

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phy into Greece. The first of these studied the nature of animal bodies by anatomy; the second attempted phyfic by philosophy; and this introduced a kind of reasoning in medicine, which was unknown in its first period. It is probable, however, that the experience of one school would be unconnected with the philosophy of the other: but the union of these two was requisite to an extensive improvement of the healing art; and this union was accomplished in Hippocrates, who founded Dogmatism, which I have distinguished as the third period, and which I shall more fully explain in another place.

C H A P T E R I.

OF MEDICINE IN GENERAL.

THOUGH man, the noblest work of the Creator, be endowed with powers capable of reaching the most exalted attainments, and of admitting the highest refinements; yet this state of perfection is acquired by slow and almost imperceptible gradations, from the infancy of knowledge, to that degree of philosophy which renders him not only susceptible of the most sublime and varied perceptions and pleasures, but likewise of extending them to others; and while the communication of reciprocal interests creates mutual confidence, it establishes amongst communities the most solid and permanent compact.

While nature holds on her course with uniform and undisturbed regularity, men enjoy the benefits resulting from it without adverting to the cause; but every deviation from this regular course rouses and astonishes them. When they behold events to which they are not accustomed, they search for the reasons of them with eager curiosity, and the understanding being unable immediately to comprehend them, imagination,
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a more forward and ardent faculty of the mind, decides without hesitation; it ascribes extraordinary occurrences to the influence of invisible beings, and supposes that diseases, and other natural phænomena¹, are the effects

¹ Whilst Cortez was at Tlascala, in his first march to Mexico, an. 1519, a phenomenon happened, which is so much in proof of this observation, that I shall relate it here. The natives of Tlascala were greatly alarmed by a surprizing eruption of fire from the volcano of Popocatepec, an high mountain at eight leagues distance from the city, which filled the people with terror and consternation; for they imagined it to be a presage of future misfortunes, and supposed that the sparks of fire were the souls of tyrants sent abroad by the offended deities to chastise the earth.

While Magiscatzin, one of the senate of Tlascala, and some of the principal noblemen were rehearsing these idle fancies to Cortez, Diego de Ordaz came to ask leave to ascend the mountain, in order to gratify his curiosity. The indians, astonished at his request, endeavoured to persuade him from engaging in such a dangerous enterprize; and observed, that the boldest men of their nation had never ventured beyond some hermitages of their gods, about the middle of the eminence, and that dreadful roarings and tremblings forbad all approach to its summit. This account encreased the eagerness of Diego de Ordaz, and Cortez granted his request, in order to afford the Tlascalans a proof of the superior courage of the Spaniards. As the Spaniards approached the summit, they were instantly covered with a shower of hot ashes, which obliged them to seek for shelter in the hollow of a rock, where they were almost stifled. Ordaz, however, perceiving that the earthquake was passed, encouraged the soldiers, by his example, to prosecute this discovery, till they came within sight of the mouth of the volcano, which was about a quarter of a league in circumference; and they observed at the bottom a large quantity of inflammable matter, which boiled up like some shining metal in fusion. With this account they returned safe, to the astonishment of the Indians, whose esteem for the Spaniards was encreased by this adventure, which afterwards proved of signal service; for Ordaz found a large quantity of sulphur in the mountain, of which Cortes made gun-powder, when it was much wanted by the army the second time they entered Mexico. Herrera par de la Coste, T. 2. p. 454. De Solis Conquest of Mexico, V. 1. book 3. ch. 4. p. 319. Collection of Voyages, V. 2. p. 77. Gage's New Survey, p. 152. This discovery
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effects of their displeasure and interposition ; and hence it was natural to seek for the cure of them from the deities and their ministers, agreeable to the observation of Celsus, “ Morbos verò ad iram deorum immortalium “ relatos, et ab iisdem opem posci solitam^k. ”

Whilst mankind continued under the influence of such sentiments, the medical character must have acquired the highest respect, and especially when the means used for restoring health proved successful.

The Egyptians and other eastern nations, who first cultivated science, cherished this veneration in the ear-

of sulphur in the mountain of Popocatepec, was found so useful in the conquest of Mexico, that the Emperor gave Ordaz the burning mountain for his arms, *ibid.* p. 320.

The above Magiscatzin, who died whilst the Spaniards were at Tlascal, was the first person of dignity in South America that was baptized. Several caciques followed the example of Magiscatzin, and the old general Xicotencal was also baptized by father Olmedo; but the emperor Montezuma, though he died in the Spanish camp, never would submit to this ceremony, upon which account De Solis, in his Conquest of America, intimates, that the Devil took eternal possession of the emperor's soul. See Ulloa's account of Caloto bells, used as preventives against the effects of lightening, V. 1. l. 6. ch. 3. p. 341. The people of Brasil were so affrightened by thunder, which is frequent and dreadful in their country, as well as in other parts of the torrid zone, that it was not only the object of religious reverence, but the most expressive name in their language for the deity, was *Toupan*, the same by which they distinguished thunder. Pise da Medec. Brasil. p. 8. Nieuhoff. Church. coll. V. 2. p. 132.

* L. 1. in præf. et l. 7. in præf. See also the History of the disease of Job, which was considered as the immediate stroke of heaven. Conf. De François Voyage Pyard. c. 9. p. 62, 63, 131, 132, 282.

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liest periods of time; and the ancient Greeks, who were less advanced in civilization and the refined arts than the Trojans¹, never mention their professors of medicine but

¹ In various parts of the Iliad, Homer exhibits the superior elegance and refinement of the Trojans, in their manners and in their arts: their architecture is more superb; their very arms are richer, for it was in the power of Glaucus to exchange a golden shield for the brazen one of Diomedes. Their greater attachment to the female sex, is a proof of their superior civilization, the happy influence of which is in nothing more apparent, than in improving and polishing this tender passion; upon which subject the authors of the Monthly Review, V. 57. p. 50, 51. have made some elegant and philosophical observations. Homer, they add, who is perhaps the most perfect copier of nature that ever appeared, and one of the few poets who paint the manners, marks, in this respect, the difference between the Greeks and the Trojans. The barbarity of the Greeks appears in nothing more than in their sentiments with regard to women. The quarrel between Achilles and Agamemnon, which is the foundation of the Iliad, turns upon women; but it is an affair of honour, not an affair of love. Whenever the heroes of Greece talk of their mistresses or their wives, their humiliating and depressed condition appears. The Trojans are represented as a different people; among them the character of women is raised, and their state improved. The gallantry of Paris to Helen, the tender affection between Hector and Andromache, mark a civilized and polished nation. The famous panegyric on Helen, as she passed by the Scaean gate, from the old men who sat to survey the battle, "What wonder that so many kings and nations should arm in the cause of so much beauty," is the politest compliment paid to women in all antiquity. In describing the cestus of Venus, the finest fiction in the Iliad, Homer expresses his own ideas and feelings with regard to the charms of beauty, and the allurements of love: "SHE LOOSED FROM HER BOSOM THE VARIEGATED ZONE. IT CONTAINED ALL FEMALE ATTRACTIONS. THERE WAS LOVE; THERE WAS DESIRE; THERE WERE RECIPROCAL VOWS OF PASSION, AND THE BLAND ACCENTS THAT STEAL THE HEART OF THE WISE."

This respect for women, as exhibited in the History of America at its first discovery, rises in proportion to its state of refinement. The rude Indians treated their wives like slaves; but in the more polished kingdoms of Mexico and Peru, more attention was paid to the sex. When

but with the warmest gratitude and veneration. The Argonautic expedition was not undertaken without the attendance

Sandoval took Guatimozin, the last emperor of Mexico, Aug. 13, 1521, the emperor thus addressed his conqueror: "I am your prisoner, and ready to go whither you think fit to conduct me. All the favour I have to ask is, that due regard may be paid to the honour of the empress, my comfort, and her female attendants." This is the Guatimozin, whom Julian de Alderete roasted upon burning coals with his minister: when they were both in this situation, the minister casting his eyes upon the emperor, cried out violently; upon which, Guatimozin with great composure said, "Am I now reposing on a bed of flowers?" at which the minister was so struck, that he expired without uttering any further complaint. Cortez hearing his first cries, burst into the apartment, and released the emperor before it was too late: he tarnished however this act of humanity, by afterwards hanging the emperor, an. 1527. Herrera's America, V. 2. c. 17. Not long after this transaction, Atahualpa or Atabaliba, Inca of Peru, was a prisoner under Pizarro, and his attachment to his wife proved the occasion of his massacre: the fact is curious, and this will be an apology for its insertion here. Atahualpa, who was a prince of great penetration, was however puzzled at the art of writing and reading, which the Spaniards possessed; he was not able to comprehend whether it was a natural endowment, or an acquirement of art. In order to obtain satisfaction, he asked one of the Spanish soldiers, whether he could express the name of God upon his thumb nail; the man readily answered that he could, and accordingly wrote it: after which the Inca went to several of the captains, and shewing them his thumb nail, asked if they knew what that mark signified; and from their answers, he began to entertain an opinion, that reading and writing were natural to the nation: but Francis Pizarro falling in his way, he asked him the same question; when, being unable to read or write, he blushed, and turned away without giving an answer; which not only changed Atahualpa's opinion with respect to these accomplishments, which he now plainly saw were the fruits of education; but it gave him a very low opinion of the general, who was exceeded in knowledge by the meanest soldier. His contempt for Pizarro, however, laid the foundation of his ruin, which was completed by the villainy of a wretched interpreter, Phillipillo, one of the Indians, whom Pizarro had carried off from Tumbez, an. 1520, who falling in love with one of Atahualpa's wives, a Coya, or descendent of the Incas, that monarch was so incensed, that he let Pizarro know, that the fellow deserved.

attendance and aid of a physician, even the divine Æsculapius, who was considered as one of the principal heroes of

deserved to be put to death, which the general turned into jest. The interpreter in revenge accused the Inca of contriving the destruction of the Spaniards, and this ridiculous story was digested into a formal accusation: he was tried and ordered to be burnt; but on condition of his submitting to be baptized, he was *only* strangled. The ignorance of Pizarro, who was originally a keeper of hogs, was no crime. In the 15th century, so little were reading and writing known, that a criminal condemned to die, obtained his pardon, because he could read; which, as Voltaire remarks, is a striking proof of the stupidity of the times. Oeuvres de Voltaire, T. 1. ch. 41. The French term *taille*, or tax, came from the custom the collectors had of marking upon a small wooden tally the sums paid by the persons assessed; for very few of the common people knew how to write in the 15th century. See also Laws respecting women, as they regard their natural rights, or their connections and conduct. In the beginning of the 16th century, the age of Leo X. of the family of Cosmo de Medicis, and the reviver of Roman elegance, there were not perhaps in all Europe ten gentlemen who had a bible. Oeuvres de Voltaire, T. 4. ch. 106. A more illustrious conqueror than Pizarro, the emperor Charlemagne, was unable to write his own name: *but the revenge of the former was horrible.* It was an American woman that procured food for Columbus and his associates, when they first landed at the Antilles. Instances of the levity of women, and their passion for the conquerors of their country, are to be found in Homer; and they refer to a certain state of manners, and convey an useful moral to mankind: when women are treated like slaves, like slaves they have no aversion to change their master. Mo. Review, V. 57. p. 140. See also Recherch. Philos. V. 1. p. 69 and 70, and the authorities. V. 2. p. 180, 181. n. Bossu's Louisiana, V. 1. p. 62. Charlev. Hist. of Paraguay, V. 1. l. 1. p. 39. in the fabulous but tender History of Miranda and Hurtado. Plin. in vit. Agid. Tacit. Hist. l. 4. c. 67. Plutarch. Amat. p. 38. and seq. p. 44. P. Martyr, p. 53. and particularly a voyage to the Mauritius, wherein the influence of distinguished love are tenderly described in the letters respecting the Cape of Good Hope. Confer. Garcilasso Hist. des Incas, V. 1. l. 4. chap. 4. p. 345. et sparsim. Augustin de Carate, chap. 7. p. 98. Ulloa's voyage to South America, V. 1. b. 5. ch. 4. p. 249. Herrera, Hist. Gen. des Conq. dec. 5. l. 3. c. 4. Bossu's Louisiana, V. 1. p. 62. and particularly Recherch. Philosoph. sur les Americ. V. 1. p. 69. and

of the school of Chiron the Centaur. The history of Machaon, his son, exhibits a character adorned with the most amiable qualities. When he is wounded by Paris at the siege of Troy, the whole army appear interested in his recovery: even Achilles, during his receding from the allied army, when he had

His friend Machaon singled from the rest,
A tranfient pity touch'd his vengeful breast^m;

and he difpatches Patroclus to enquire after the “wounded offspring of the healing God,” who was placed under the protection of the wife Nestor at the request of Idomeneus, who very juftly obferves, that

A wife phyfician fkill'd our wounds to heal,
Is more than armies to the public wealⁿ.

Podalirius, brother of Machaon, returning from the war of Troy, was thrown by a tempeft on the Coaft of Caria; and a report being communicated to king Damœtus, that he was a phyfician, he was fent for by that prince to attend his daughter, who had fallen from

69 and 70. V. 2. p. 180, 181, where a number of instances are enumerated in proof of this fingular attachment. So wonderful is the invention of writing to rude nations, that to this day many of them imagine that paper is made to fpeak by a fpecies of forcery. Vide Labat. Voy. aux Ifles, T. 4. c. 7. page 178.

^m Homer's Iliad. l. xi.

ⁿ Homer's Iliad.

the top of an house, and it is said that he cured her, by bleeding her in both arms°. The king, in acknowledgment of his great skill, gave him that princess in marriage, with the Chersonesus.

Fable says, that the daughters of Proetus, king of Argos, thought themselves metamorphosed into cows^p, which was attributed to the wrath of Bacchus, or Juno^q. Melampus, a prince devoted to a pastoral life, remarked, that when the goats eat hellebore, they were violently purged, whence he acquired the invention of purging; and he sent the milk of the goats for the daughters of Proetus, or, as some say, gave them hellebore alone, to which he joined some superstitious remedies^r, and succeeded in curing the disease; as a recompence for which, he demanded a third part of the kingdom of Argos for himself, and a third part for his brother Bias^s.

Though the History of Podalirius, as well as that of Melampus, be fabulous, as bleeding was not in use before the Trojan war^t, yet the relation of it is a proof
of

° Stephan. in voce *Συγνῶς* p. 625.

^p Virg. Eclog. 6. v. 48. Servius ad hunc loc.

^q Apoll. 1. 2. p. 68.

^r Apoll. 1. 2. p. 69. Ovid. metam. 1. 15. v. 325.

^s Conf. Herod. 1. 9. n. 33. Apollod. 1. 2. p. 69. Diod. 1. 4. p. 313. Pausan. 1. 2. c. 17. Le Clerc. Hist. de la Med. 1. 1. p. 26.

^t The Asiatics do not at this day seem fond of bleeding. The Chinese did not bleed on any account. The late Dr. Arnot, of Canton, a gentleman who did his profession and his country honour, and was in the highest estimation

of the high estimation the ancients entertained for the healing art, when a kingdom was made the price of a cure.

Indeed,

estimation with the Chinese, I am informed was the first person who ever could prevail upon any of these people to be blooded. History of Tea, p. 51. Conf. Du Halde's China, V. 3. p. 362. and the Chinese Traveller, V. 2. p. 177. and seq. which contain a description of the state of physic in China. Bleeding, however, seemed familiar to the Grecians in the time of Hippocrates. It was familiar to the natives of Peru, when that country was first discovered, Garcillasso Hist. des Yncas. Vol. 1. l. 2. ch. 24. p. 206. and to some other countries, Moeurs des Sauvages, T. 2. p. 370. Considering how much accident conduces to science, may we not deduce this early discovery of the Peruvians to their bats, which are so numerous, that after sun set, in some provinces, when they begin to fly, they cover the streets like clouds; they are almost as large as rats, and the inside of the roofs of the outhouses are generally lined with them. They are the most dexterous bleeders both of men and cattle; for the inhabitants being obliged by the excessive heats, to leave open the doors and windows of the chambers when they sleep, the bats get in, and if they happen to find the foot of any one bare, they insinuate their tooth into a vein, with all the art of the most expert surgeon, sucking the blood till they are satiated, and then withdraw their tooth; after which, the blood flows out of the orifice. I have been assured, by persons of the strictest veracity, that such an accident has happened to them, and that, had they not providentially awaked soon, their sleep would have been their passage into eternity, they having lost so large a quantity of blood, as hardly to be able to bind up the orifice. The reason why the puncture is not felt, is attributed to the gentle and refreshing agitation of the air by the bat's wings, hindering the person from feeling this slight puncture, by throwing him into a deeper sleep. Ulloa's Voyage to South America, V. 1. l. 1. c. 7. p. 59. Martyr, de Novo, orbe Dec. 3. ch. 6. p. 129.

The Indians of North America have learned a rude method of bleeding, by scarifying the pained parts with sharp stones. Hennepin's continuation of a new discovery, p. 82. 101.

Sir Hans Sloane says, that the negroes of Jamaica, after scarifying, applied a calabash, with some chips, or combustible matter burning in it; and he adds, that they are fond of bleeding in the nose. History of Jamaica, V. 1. Introd.

Indeed, when we reflect how many victims of disease, pain, and misery, are redeemed from the grave by the art of medicine; when the dearest of human blessings, and even life itself, are committed to its professors; can we form an idea of any function more dignified, more sacred

Intro. p. 54. Charlevoix, in the History of Paraguay, deduces the discovery of bleeding from the anta, an animal, "who, when he finds himself "overstocked with blood, opens one of his veins with the point of a reed." Martyr mentions a curious story of the success of phlebotomy, by one of the bats above-mentioned. An household servant of the monastery (says he) was sick of a grievous pleurisy, in great danger of life, and having need presently to be let blood, the phlebotomist assayed to strike the vein twice or thrice, but got not any drop of blood with his razor, whereupon he being left for a dead man within a few hours, the fryars taking their last farewell, departed, to go about to prepare for his burial. A bat seizeth on him; being thus forsaken, and opened a vein of one of the sick man's feet, which was uncovered; the bat filled with sucking of the blood, flew away, and left the vein open. At the rising of the sun, the fryars came to this forsaken man, supposing him to be dead, and found him alive, and chearful, and almost well, and after a while he recovered health, diligently applying himself to his old office; thanked be the bat, which was his physician. De Novo orbe Dec. 8. ch. 6. p. 300.

Wafer, who lived some time with a tribe of Indians, near the isthmus of America, relates a curious method of bleeding practised among them; his words are, "It so happened, that one of Lacenta's (the chief) wives being indisposed, was to be let blood, which the Indians perform in this manner: the patient is seated on a stone in the river, and one with a small bow shoots little arrows into the naked body of the patient, up and down, shooting them as fast as he can, and not missing any part; but the arrows are gaged, so that they penetrate no farther than we generally thrust our lancets, and if by chance they hit a vein which is full of wind, and the blood spurts out a little, they will leap and skip about, shewing many antick gestures, by way of rejoicing and triumph." Voyages, &c. p. 28. Wafer was a surgeon, and relieved the lady from this painful process, by the European mode of bleeding, by which he acquired great reputation with Lacenta, and thereby gained his protection, which saved both his own life, and that of other Buccaneers. The negroes of Juida,

sacred than this"? the first dawns of which it is my desire to lay before you, believing, with Cicero, Neque enim ullâ aliâ re homines propius ad Deos accedunt, quam salutem hominibus dando.

as an obligation to fulfil what they promise, draw from themselves a few drops of blood, which they sprinkle into a hole made in the ground (Barbot. Descript. de la Guinée) For the same purpose the Siamese reciprocally drink of the blood of each party. Rel. de la Coubere. And Sallust says, that Cataline presented to his accomplices, vessels filled with wine and human blood. Formerly, when a Russian wanted to exculpate himself from a crime, he was obliged to open a blood vessel under the left thigh of a dog, and to suck the blood till the animal expired: if he vomited the blood, or appeared disordered by it, he was deemed guilty. Le Brun's Voy. t. 1.

* See an observation which father Hennepin makes to this purpose, when under confinement by the Indians. New Discovery of a large country, &c. p. 183.

SECTION

S E C T I O N I.

OF THE PRACTICE OF PHYSIC.

IN the simplicity of primæval days, when man was not oppressed with labour, enervated by luxury, nor disquieted with care; one may imagine that his life would flow on, almost untroubled by disease or pain, until his days were terminated in extreme old age, by the gradual decays of nature: but in whatever situation of life man is placed, he is born to suffer; and as soon as pain and disease invaded the body, self-preservation, as an instinctive principle of action, would operate upon the mind, and lead it to apply such means of relief, as accident, or experience, or its own operations, might suggest^w.

Some diseases are spontaneously cured; many more are attended with an instinct which points out their remedies; and others, not coming under either of these heads, would induce men to try new methods of removing them; and this would probably give the beginning to our art; when medicine was prescribed by all

^w Hist. gen. des Voyag. t. 9. p. 264. Hist. des Yncas, t. 2. p. 35. and 47. Robertson's Hist. of America.

persons without distinction^x, and the different departments of it were undistinguished^y. The experiments of any individual were communicated by him to others who were supposed to labour under similar disorders, and this knowledge descended from parents to children^z. The Babylonians, Egyptians, and some other nations who admitted these customs, exposed their sick to public view, that such as passed by, if they had suffered and been cured of the like indispositions, might assist them with their advice; and no person was permitted to pass by these exhibited patients, without informing himself of their diseases^a.

In this rude state of knowledge, these nations who cultivated medicine more antiently, and more learnedly than any other people^b, had no method of recording events but by hieroglyphics, which were not generally comprehended; but after the invention of letters, those who had been attacked with any distemper, explained

^x Vid. Plin. l. 29. sect. 5. p. 495. Les Mœurs des Sauvages, t. 2. p. 364.

^y Herodot. l. 2. p. 84.

^z Diodor. l. 1. p. 30. Garcilasso hist. des Yncas, t. 2. p. 48, 49.

^a Herodot. l. 1. p. 197. Strabo. l. 3. p. 234. L. 16. p. 1082. Similar to this is the custom of enquiring of the first person who is met upon a pycalled horse, for the cure of the whooping-cough.

^b Homer. Odyss. l. 4. v. 231. Isocrat. in Busirid. p. 329. Plin. l. 7. c. 56. p. 414. Clem. Alexand. Strom. l. 1. p. 361. Conf. Dr. Woodward on the Wisdom of the Antient Egyptians, published in the Archæologia of the Society of Antiquaries, Vol. 4. p. 212.

in writing the means by which they had been cured; and these memoirs were placed in their temples to serve for the instruction of the public. Every one was at liberty to consult them, and to chuse the remedy which he judged most suitable to his disease^c, or to compound a new one, as his own judgment might direct. The number of remedies being soon greatly augmented, it became requisite to put them in order; hence the priests and priestesses, who officiated in those temples, came to acquire a more general knowledge of medicine, and were usually consulted upon critical occasions^d.

Whenever man in his unenlightened state finds himself in a situation so formidable, that the mind sensible of its own weakness, has no resource but in the guidance and protection of a superior power, he is apt to refer natural incidents to supernatural influence; and unaccustomed to investigation, he meets with an easy solution in attributing to first causes, what is beyond the reach of his sagacity; and while this has relaxed the mental powers, it has impeded the progress of science.

But the principal obstacle to the improvement of medicine in Egypt, depended upon the laws respecting

^c Plin. l. 29. c. 2. p. 493. Pausan. l. 2. c. 27 and 36. Strabo l. 8. p. 575.

^d Galen. de subfigurat. Empiric. de simplic. medicam. facultatib. l. 11. Philostr. in Vita Apollonii Tyanæi, l. 1. c. 6. Galen. de different. Morb. cap. 9 and 11. Tacit. hist. lib. 4.

the application of remedies. The records which had been accumulated in the temples, were collected in certain sacred books^e, and from them the physicians were not permitted to deviate^f: if they adopted the prescribed mode, they were not answerable for the event; but if they rejected it, and the patient died, they were punished with death^g. The practice as well as the theory being thus established, there could be no emulation excited, and genius was less requisite to them than memory.

As this profession was not only exercised with little difficulty, but also rewarded with profit^h,

^e In Egypt, these books were deposited in the temple of Vulcan. Galen. de compos. medicam. per genera, L. 5. c. 2. t. 13. p. 775. edit. Charterii. One of the most antient temples of the Cabiri (of whom Esculapius was one of the chief) was at Memphis, which was held so sacred, that no person, except the priests, was suffered to enter its walls. Cambyfes entered into these sanctuaries, and took a view of the statues in each. They were nearly alike, and of a fantastic form, after the mode of Egypt; on which account he ordered them to be thrown down, and the temples to be destroyed. From Egypt this worship was carried to Canaan and Syria, and from thence to Greece, whence arose the Esculapius of Epidaurus, Vid. Herod. l. 3. c. 37. Strabo, l. 10. p. 725. Euseb. Præp. Evang. p. 39. Damascius apud Photium, p. 1078. Bryant's Analysis of Mythol. vol. 2. p. 462. Conf. Archæologia of the society of Antiquaries, Vol. 4. p. 223.

^f Diodor. L. 1. p. 74. Plato de Legib. L. 2. p. 789.

^g Diodor. L. 1. p. 74. Aristotle de Repub. L. 3. c. 15. p. 358.

^h Diod. L. 1. p. 74. Exodus c. 4. v. 19. Mercedem medici solvet, says the Chaldaic paraphrase on this verse.

and

and in an unfalubrious climateⁱ, we may readily admit the assertion of antient history, that no country abounded with so many physicians as Egypt, and that their multiplicity rendered it necessary to allot them^k to the care of distinct diseases^l. We do not, however, read of the different departments of medicine in this

ⁱ Voyage de l'Egypt par Granger, p. 19 and 20. Description de l'Egypt par Maillet, p. 15 and 26. Plut. t. 2. p. 367. B. Gemelli, t. 1. p. 33 and 113. Relat. de l'Eg. par le Vansleb. p. 36. Plin. L. 26. c. 1.

^k The Egyptians and Indians were divided into different casts, each of which had its proper function. The rank and office of every tribe were hereditary and unchangeable. This rule of invariable distinction prevailed no where else, except with the Iberians. Bryant's Mythology, Vol. 3. p. 458. Strabo, l. 11. p. 763. l. 15. p. 1029. Herod. l. 2. c. 164.

^l Herod. l. 2. p. 84. who says that the art of physic is distributed into several distinct parts, and every physician applies himself wholly to the cure of one disease only, no man ever pretending to more; by which means all places abound with physicians; some professing to cure the eyes, others the head, teeth, or parts about the belly; whilst others take upon them the cure of internal distempers. A people must have acquired some degree of refinement, before such a division of medicine could be made. The state of medicine may be considered as the criterion, or barometer of the state of science in a nation. Wherever science and refinement have extended their influence, there medicine will be particularly cherished, as conducive to the interests and happiness of mankind. This explains the miserable state of physic in Europe, so late as in the 10th century. There was then scarcely a physician in all Spain; Sancho, the fat, king of Leon, was obliged to make a journey to Cordova (from whence our cord-wainer is derived) in 956, to put himself under the care of an Arabian physician; who, though sent for by the king, resolved that the king should come to him. Voltaire's Ancient and Modern History. Even at this day the Spanish physicians are not able to cure the Lues Venerea; and though the disease is prevalent among the people, yet for want of proper aid, they linger out a miserable life, and expire under it at last. Dalrymple's Travels through Spain and Portugal, in 1774. I have read some where, that about the time of John Sobieski, king of Poland, upon a sudden emergency, no physician could be found in that kingdom.

period, as we find them in modern times; nor have we any authentic history transmitted to us, of the remedies which were then used^m.

While the physicians were confined to a certain form of prescribing, many diseases would elude all the stock of medical knowledge which had been acquired; and the patient oppressed with pain that could not be alleviated, and seeing no prospect of relief but from the interposition of some invisible arm, would naturally have recourse to those rites or practices which bear any resemblance to acts of religion, as well to remove the evils which he suffered, as to avert the dangers which he dreaded; for the mind that trembles with fear, is the most apt to glow with impatience; and this has given rise to charms, amulets, incantations, and other mysterious modes of obviating diseasesⁿ.

^m Herodotus, speaking of the Egyptians, observes, that they purge themselves every month, three days successively, by vomits and glysters, in order to preserve health; supposing that all diseases among men proceed from the food they use, l. 2. A similar practice of preventive treatment is still continued among some eastern nations. The external application of Moxa, as a preventive, is used among the Arabians, Persians, Chinese, and other eastern nations. Kœmpfer. *Histoire du Japon*. T. 3. p. 282, et suiv. Kœmpfer. *Amœnitat.* p. 582, in which are described the diseases wherein Moxa is used, with an engraving. The Peruvians used purging and bleeding as preventives from diseases; they performed the latter operation in the thigh, the arm, the wrist, the eye-brows, and other parts of the body, by means of a sharp flint. Garcilasso's *Hist. des Yncas*, T. 1. l. 2. ch. 24. p. 206, 207 and 208. Vide Heister, *Institut. Chirurg.* T. 1. c. 18. p. 443.

ⁿ Scholiast. in Ptolom. *Tetrabibl.* l. 1. Conringius de *Hermetica medic.* l. 1. c. 12. Borrichius de *ortu et progressu Chæmiæ*, p. 59. Herod. l. 2. p. 37, 65, 82. Le Clerc. *hist. de la médecine*. l. 1. c. 5. p. 13.

In

In the early times of Greece, this superstitious disposition of ascribing, to the Deity, the origin of diseases, and of attempting their cure by appeasing his wrath, generally prevailed: thus Homer, though he describes the progress of the plague which reigned in the Grecian camp, with some degree of accuracy, does not relate that any human effort was exerted to obviate its fatality; the advice is, let

—— Some prophet, or some sacred sage,
Explore the cause of great Apollo's rage;
Or learn the wasteful vengeance to remove,
By mystic dreams; for dreams descend from Jove.
If broken vows this heavy curse have laid,
Let altars smoke, and hecatombs be paid.
So heav'n aton'd, shall dying Greece restore,
And Phoebus dart his burning shafts no more °.

° Iliad, l. 1. See the conduct of Palesmedes, who was a fatalist, and consequently looked upon medicine as a knowledge odious to Jupiter and the fates, and had refused to be instructed in that science by Chiron. The example of Æsculapius being thunder struck, frightened him, Philostrat. Heroic. c. 10. p. 708. But it is said that by his advice the plague, which ravaged all the cities of the Hellespont, and even Troy, was hindered from attacking any person in the Grecian camp, although the place where the camp was situated was very unwholesome; he ordered them to abstain from flesh, and enjoined much exercise. Ibid. p. 710. This is probably fabulous. The North American Indians have the most implicit confidence in dreams: "Their dreams," says Hennepin, "are to them instead of prophecy, inspiration, laws, commandments, and rules; in all their enterprizes, in war, peace, commerce, and hunting, they regard them as oracles; and they carry this so far, that if their dream orders them to kill a person, or commit any other wicked action, they presently execute it." Continuation of a new discovery, p. 66. See a more particular description, Moeurs des sauvages, t. 1. p. 362. Charlev. Journ. Hist. d'un Voyage de l'Amer. t. 3. p. 353. and seq.

When Menelaus and many other Grecian heroes were wounded at the siege of Troy, the bard does not neglect to describe the means that were employed for their recovery, which consisted solely of external applications^p; except in the instance of Machaon, whose
 potion,

seq. 369. containing a diverting account respecting the dream of an Indian, and the manner of keeping the festival of dreams. Vid. Diod. Sicul. l. 1. sect. 6. l. 5. ch. 20. Mem. de l'Acad. des Inscript. t. 1. and la Dissertation de l'Abbé Du Resnel, t. 31.

^p The Americans seem to have acquired the knowledge of some internal remedies, from the earliest history we have of them. In external bruises, or injuries from falls, which occasioned an hæmorrhagy of the nose, the Chilse gave a decoction of the herb Quinchamali, a sort of Santolina or dwarf Cypress. In dropsies they exhibited a decoction of the bark of the Peumo tree. For the tumescence of the body arising from the effluvia of the Licli, Manchineel, and other poisonous trees, they applied a preparation of the Pellboqui, a species of ringweed.

A species of cinnamon was likewise in use with them, to which the description of Virgil appears peculiarly applicable.

*Ipse ingens arbor, faciemque simillima lauro,
 Et, si non alium late jactaret odorem,
 Laurus erat; folia haud ullis labentia ventis;
 Flos apprima tenax; animas, et olentia medi
 Ora foveat illo, et finibus medicantur anhelis.*

Georg. 1. 2.

This tree among the Indians is appropriated to the ceremonies of peace. When they concluded the peace with the Spaniards, in the year 1643, they killed many of the country sheep, and dipped into their blood a branch of this cinnamon, which the deputy of the Caciques delivered into the hand of the Marquis de Baydes, the Spanish general, in token of peace. Moses adopted a similar practice upon another occasion, Exod. ch. 12. Paul to the Hebrews, ch. 9. Confer Voyage du Fregier, p. 78, 79, and 80. Ulloa's Voyage, v. 1. l. 6. ch. vi. p. 357.

The

potion, indeed, is rather alimentary than medicinal^a.

The North American Indians have had, for time immemorial, a method of curing fevers and other diseases, which seems peculiar to them. It is an external remedy, which, to the best of my recollection, was first mentioned by father Hennepin, who published his travels above a century ago. After he was taken prisoner by the Illinois, and suffered innumerable hardships, he was adopted by an Indian chief as his son: of this warrior he says, "This new father of mine observing that I could not well rise without two or three to help me, ordered a stove to be made, into which he caused me to enter stark-naked, with four savages. This stove was covered with the skins of wild bulls, and in it they put flints and other stones red hot. They ordered me, by signs, to hold my breath time after time, as long as I could, which I did, as well as those that were with me. As soon as the savages that were with me had let go their breath, which they did with a great force, Aquipaguetin, the Indian chief, began to speak with a loud and thundering voice; the others seconded him, and laying their hands on my body, began to rub it, and at the same time to weep bitterly. I was like to fall into a swoon, and so was forced to quit the stove. At my coming out, I was scarce able to take up my habit of St. Francis, to cover me withal, I was so weak; however, they continued to make me sweat thrice a week, which at last restored me to my pristine vigour, so that I found myself as well as ever." Hennepin's *New Discovery of a Large Country in America*, p. 170, 171. Conf. Ulloa's *Voy.* v. 1. b. 6. ch. 6. p. 421. See also Charlev. *Hist. d'un Voy. de l'Amer.* t. 3. p. 369. Forster's *Translat.* v. 2. p. 175. Bossu's *Louisiana*, v. 1. p. 301.

When Capt. Cooke was at Otaheite, and was indisposed, Oberea ordered him to be stripped and rubbed for some time by her servants. Hawkefworth's *Voyages*.

The practice of the natives of Surinam consists chiefly of external applications. Fermin. *Descript. de Surinam*, t. 1. ch. 8. p. 83 and 84. See also P. Martyr. *dec.* 7. ch. 3. p. 255. Charlev. *Journal. Histor. d'un Voy. de l'Amer.* t. 3. p. 317, 364. *Recherch. Philos. sur les Americ.* v. 1. p. 52.

^a ————— The nymph of form divine,
Pours a large portion of the Pramnian wine,
With goats-milk cheese a flav'rous taste bestows,
And last with flour the smiling surface strows;
Which, for the wounded prince, the dame prepares.

Iliad 4 and 11.

H

The

They were so distant from relying upon internal remedies, that in many instances they depended wholly upon the articulation of certain words, a species of incantation very frequent in those primeval days^r.

^r The manner of charming diseases away by certain words, was very ancient; they were variously expressed, by sentences, by rhimes, by a single word; sometimes at a distance from the patient, and sometimes close to his ear.

Sometimes these words were wrote upon paper, wood, or other substances, and hung by way of amulet round the neck, or applied to other parts of the body. The remedy mentioned by Serenus Samonicus, for the cure of the Hemitritea, a species of fever, consists in writing upon paper the word Abracadabra, in the following manner, and hanging it round the neck by a thread :

Abracadabra
Abracadabr
Abracadab
Abracada
Abracad
Abraca
Abrac
Abra
Abr
Ab
A

The Jews attributed a similar virtue to the word Abracalan, used in the same manner. Buxtorf. Synagog. Jud. Selden de Diis Syriis. The Turks inscribe words from the Koran. Chandler's Travels into Greece. Amulets have been applied to all parts of the body, frequently as bracelets or collars round the wrists or neck.

When Ulysses was wounded in the knee by a wild boar on Parnassus, Homer says,

With bandage firm Ulysses' knee they bound,
Then chanting mystic lays, the closing wound
Of sacred melody confess'd the force,
The tides of life regain'd their azure course.

Odyss. l. xix.

SECTION

S E C T I O N II.

O F S U R G E R Y.

THE instinct of self-preservation is coeval with man's existence ; while passions, that tend to the injury and destruction of the species, have appeared in the most early ages of the world^s ; and these, with the accidents to which they are liable, must have given rise to the practice of surgery, long before the mind had attained the power of discovering either the causes or the cure of internal diseases, which require such a deep and intimate knowledge of the human frame, as could not have been acquired in those primeval times.

It has already been observed, that phenomena, whose causes were above the investigation of human sagacity, were ascribed to the agency of invisible beings, whose inflictions would either be acquiesced in with silent submission, or for which relief would be sought from the ministers of those deities from whom they were supposed to proceed. In the patriarchal history there is no mention of medicine, though the sickness

^s Genesis, chap. iv. ver. 8.

of several eminent persons is recorded, particularly that of Jacob, for the relief of which his son Joseph did not send him physicians, though after his death he ordered physicians to embalm his body^t; and when Job, who was probably contemporary with Jacob about 1764 years^u before Christ, was smitten with a terrible disease, he had not recourse to physicians; his disorder being considered as the immediate stroke of heaven, and by his friends as the punishment of his crimes. This is further illustrated by the case of Aſa king of Judah, who, being attacked by the gout, is reproached because he sought not to the Lord, but to physicians^x; and the directions which Moses lays down for the management of leproſies and other diſeaſes^y, afford a more early evidence of the propenſity among the ancients to conſult the miniſters of the deity, in circumſtances above the ſcale of ordinary comprehension.

But in caſes of wounds, and ſome other departments of ſurgery, where the cauſe and effect were equally obvious to the external ſenſes, and where the pain muſt have been both immediate and violent, there can be no doubt but aid would be inſtantly ſought for; and hence ſurgery muſt have been an art antecedent to medicine. Though they had phyſicians in

^t Genesis, chap. l. ver. 2. Gogue l'Origine des Loix, &c. t. i.

^u The year of the deluge of Ogyges.

^x 2 Chron. xvi. 12.

^y Leviticus, chap. xiii, xiv, xv.

the Greek army before Troy, I have observed that Homer does not intimate that they were employed in the plague with which the camp was afflicted, or in any other disease. They were only called in to heal the wounded ^z. Agreeable to this we find, that surgery was in use in the most savage nations, and early advanced to some appearance of art, the professors being distinguished and respected in a particular manner ^a; and from the numerous instances wherein their assistance would be requisite, it is no wonder that certain persons should be appropriated to the study and practice of it ^b.

We have not, however, any authentic accounts of the manner of treatment in the first ages of the world, more than that they used to wash the wounded parts with warm water ^c, to suck them clean ^d, and to apply

^z Celsus, lib. 1. in Præfat. Conf. Apollod. lib. 3. p. 172. Plin. lib. 29. v. 1. init. Hygin. fab. 274. p. 328.

^a Servius ad Æneid. lib. 12. v. 396. Le Clerc Hist. de la Med. Part I. ch. 15.

^b Exod. ch. xxi. v. 19. Diodor. lib. 1. p. 74.

^c Iliad. lib. 11. v. 845. Lib. 14. v. 6.

Thus Eurypylus, when wounded with an arrow, addresses Patroclus :

But thou, Patroclus, act a friendly part,
Lead to my ships, and draw this deadly dart;
With lukewarm water wash this gore away,
With healing balms the raging smart allay,
Such as sage Chiron, fire of pharmacy,
Once taught Achilles, and Achilles thee.

^d Iliad. lib. 4. v. 218. Vid. Le Clerc Hist. de la Med. lib. 1. p. 49. Confer Lafitau Mœurs des Sauvages, T. 2. p. 365.

the juice of vegetables pounded^e, or steeped in wine or water, oils, rosin, the bark and roots of certain trees, and bandages^f. When Menelaus was wounded in the side by an arrow, Machaon, the son of the Grecian Æsculapius, after washing the wound, and sucking out the blood, applied a dressing to appease the pain, of the juice^g of roots bruised^h, the principal remedy then known; for the composition of plasters and ointments was posterior to this heroic age.

In these times the offensive arms were principally formed of copper or brassⁱ, and the wounds inflicted by

—————
 Patroclus cut the forky steel away,
 Then in his hands a bitter root he bruise'd,
 The wound he wash'd, the styptic juice infus'd.
 The closing flesh that instant ceas'd to glow,
 The wound to torture, and the blood to flow.

Hom. Iliad. lib. 11. ad finem.

§ When Menelaus wounds king Helenus before Troy,
 ——— Good Agenor, gently from the wound
 The spear solicits, and the bandage bound;
 A sling's soft wool, snatch'd from a soldier's side,
 At once the tent and ligature supplied.

Hom. Iliad. lib. 13.

§ Lib. 4. v. 219. Conf. Plat. Repub. lib. 3. p. 613.

¶ Iliad. lib. 4. Conf. Iliad. 5. v. 401.

Then suck'd the blood, and sov'reign balm infus'd,
 Which Chiron gave, and Æsculapius us'd.

ⁱ Iliad. lib. 13. v. 599. 612. 716. Lib. 15. v. 711. Lib. 7. v. 141. Xenoph. Cyrop. lib. 7. p. 149. Q. Curt. lib. 4. c. 14. p. 232. Odyss. lib. 8. v. 229. Strabo, lib. 10. p. 688. Diod. lib. 5. p. 382. Pausan. lib. 1. ch. 23. Isidor. Origin. lib. 14. c. 6. Hesiod. Scut. Hercul. v.

by these metals would probably prove less difficult to cure than those by other weapons, at least authors have long since suggested it^k: antiquity says, that Achilles cured Telephus with the rust of his lance, the point of which was of copper; and hence this hero passes for the first discoverer of the good effects of verdigris in the cure of wounds^l.

Though iron is said to have been discovered by the burning of mount Ida 1432 years before Christ^m, it was not in general use within this period; and

221. Virg. *Æneid*. lib. 8. v. 459. Scholiast. Thucyd. lib. 1. p. 6. note 6. And particularly Conon. *Narrat.* 27. apud Phot. p. 445. Bochart. *Chan.* lib. 1. c. 19. p. 477. These give an account of the arms used in antient times. Pausan. *Laconic.* takes it for granted, that the arms, as well offensive as defensive, were brass. He says, the spear of Achilles was kept in his time in the temple of Minerva, the top and point of which were of brass; and the sword of Meriones in that of *Æsculapius*, among the Nicomedians, was entirely of the same metal. Pope's *Hom.*

^k Aristotle *Prob.* 35. § 1. p. 683. Plut. *T.* 2. p. 659. *Journal des Sçavans*, Jouillet 1678, p. 159.

^l Plin. lib. 25. § 19. p. 365.

^m About twenty years before the first Olympic games were celebrated in Elis by the Idæi Dactyli, and about seventy years after the deluge of Deucalion. Vid. *Marm. Oxon.* Ep. 11. Seneca, *Ep.* 90. p. 405. Clem. *Alex. Strom.* p. 401.

According to some, the Idæi Dactyli did not make this discovery of iron till 1406 years before Christ, under Minos king of Crete, about twenty years before Ceres came to Athens, and taught them to sow corn; and about ninety years after Cadmus carried the Phœnician letters into Greece, and built the citadel of Thebes. It is not much above a century since iron was known to the North American Indians. See father Hennepin's *New Discovery*, &c. p. 182.

therefore

therefore flints, and the bones of beasts and fishes ⁿ, were probably the first instruments used in surgery. The Egyptian embalmers employed an Æthiopic stone, exceedingly sharp, for opening dead bodies, and taking out the entrails ^o. With such stones circumcision was likewise performed ^p; and the history of most savage nations furnishes us with similar practices ^q.

Considering the frequency of quarrels and bloody battles, which convulsed mankind in the most early

^a Hence Juvenal says, in his 4th satire,

— — — Ecce furentis
Bellonæ, matrisque Deum, chorus intrat, et ingens
Semivir obsceno facies reverenda minori
Mollia qui ruptâ secuit genitalia testâ.

^o Herod. lib. 2. note 86. Diodor. lib. 1. p. 102.

^p Exod. c. 4. v. 25. A worthy member of this society, M. Dymond, who was some time upon the coast of Africa, informs me, that the natives were so expert in the use of flints, that they opened a vein with almost the same facility that an European would with a lancet.

When Cortes the conqueror of Mexico first entered the city of Zempoala in South America, it was totally abandoned, though the natives left in their temples several idols, with knives made of flint, and some miserable remains of human victims. The Cacique of this city was the first that formed a league with Cortes, and assisted him against the emperor Montezuma, to whom he was tributary. De la Vega mentions the dexterity of the Peruvians in bleeding with sharp flints. Hist. de Yncas, v. 1. l. 2. ch. 24. p. 206. Conf. Hennepin's Continuation of a New Discovery, p. 82. 101.

^q Mœurs des Sauvages. t. 2. p. 370. Voyage de la Baye d'Hudson, t. 1. p. 108. Hist. des Yncas, t. 2. p. 49. See also the late Voyages published by Hawkesworth, Cooke, and others, and particularly the description of the labouring instruments. Hennepin's New Discovery of a large Country, &c. p. 142.

periods

periods of time, one might expect to have seen surgery more progressive, from the experience which might have resulted in consequence of the situation of the wounded and prisoners; but in these primeval times, when mankind were less civilized, and more weakly connected by the mutual obligations and ties of society, very little attention was given to captives, who were considered as the slaves of the conquerors. In the first great battle upon record ^r, in which nine kings were engaged ^s, and which has been commemorated as the first Titanic war ^t, we find no mention of an exchange of prisoners, though the dead were frequently redeemed ^u. The Grecians had no regular mode of exchanging prisoners ^w, and the manner

^r Bryant's Anal. of Ancient Mythol. v. 3. p. 72. 233. 262. Bryant's Observations on Ancient History, p. 201. 204.

^s Genesis, chap. xiv.

^t Bryant's Anal. of Ancient Mythol. v. 1. p. 423. v. 3. p. 49. 56. 71. 81. 233. 250. 261. 412. 439. 516. Henley's Dissertation upon the controverted Passages in St. Peter and St. Jude, concerning the Angels who sinned, and kept not their first Estate; called also the Sons of God, who went in unto the Daughters, &c.

^u Hector's body was redeemed from Achilles (Hom. Iliad.) Achilles was also redeemed from the Trojans (Lycophronis Cassandra, v. 269.)

^w After the battle of Plataea, which crowned the Greeks with victory against the army of Xerxes, who on the same day obtained also the laurel at Mycale, the Persians redeemed their captives from the conquerors at a prodigious expence. Many more, however, were not ransomed, who took the menial trades and services from the citizens, and taught them a fatal lesson of pride and overbearance. Other slaves were sent to the silver mines in Attica.

manner of their conquerors insulting over the dead bodies of their enemies, was equally cruel and barbarous. The rage of Achilles for the loss of Patroclus, was inhumanly expressed, in dragging the mangled body of Hector round the walls of Troy, and the sepulchre of Patroclus^w. No less ignominious was the

Similar to this the *Sieur Froger*, engineer under *M. de Gennes*, who visited Africa near a century ago, says of the people, that their principal aim is to take a great number of prisoners, who are never exchanged, but are either distributed for the service of the officers, or sold for the sovereign's advantage. *A Relation of a Voyage, &c.* p. 12. See *Agamemnon's* cruel treatment of *Adrastus*, his prisoner, who in vain attempted to redeem his own life. *Homer* says, lib. 6. v. 77.

Fierce from his knees the hapless chief he thrust,
The monarch's javelin stretch'd him in the dust.

On the barren rock of *Sphaacterium*, we read, that 420 of the first warriors of *Sparta* were surrounded by the *Athenian* fleet; many of them were killed, and the remainder, after a sharp contest, surrendered at discretion. A proposal was afterwards made to exchange these prisoners for the cities which the *Spartan Brasidas* had gotten possession of; but it did not take effect. In book xi. *Atrides* exhibits similar cruelties against *Pisander* and his brother.

^w *Iliad*. x. v. 368. *Statius Thebaid*. ix. v. 380. *Achilles* takes twelve Trojan captives, whom he sacrifices to the shade of *Patroclus*:

Then last of all, and horrible to tell,
Sad sacrifice! twelve Trojan captives fell.
On these the rage of fire victorious preys,
Involves and joins them in one common blaze.

Hom. Iliad. l. 23.

The raging hero adds in answer to their prayers for life:

Talk not of life, or ransom, he replies;
Patroclus dead, whoever meets me dies.

L. 23.
Achilles

the treatment of the Spartan Leonidas *, who fell by the superior strength of Xerxes †. The Romans, during the commonwealth, never exchanged their prisoners upon any occasion whatever ‡; so that one of the most likely means of promoting the knowledge of surgery, and the offices of humanity, was thus in great measure precluded. Indeed the mode of making war among the ancients was no less inhuman than

Achilles treated with more humanity the two sons of Priam, who were ransomed by a sum of money, *Iliad*. l. 11. This, however, is no exception to the general observation I have made, as they were not prisoners of war; but kept their father's sheep on mount Ida.

* Herodot. Calliope.

† When Philip of Macedon, the father of Alexander the Great, had gained the battle of Chæronea 338 years before the Christian æra, he gave a banquet to his officers, and being transported with joy and wine, he hurried to the place of battle, and insulted the dead bodies which covered the field; but none of his courtiers dared to open their lips at such inhuman behaviour. Demades the orator, then his prisoner, however, nobly addressed the prince in the following manner: "Since fortune has given you the part of Agamemnon, are you not ashamed to act that of Thersites?" To Philip's reputation, this rebuke totally changed his disposition, and he loaded his prisoner with honours.

‡ Vid. Tacit. lib. 4. Liv. lib. 2. Manners and Customs of the Romans, p. 287.

Among the Romans, in the early periods of their commonwealth, it was a maxim that a prisoner, "tum decessisse videtur cum captus est." Digest. lib. 49. tit. 15. c. 18. and afterwards, when the progress of refinement rendered them more indulgent with respect to this article, they were obliged to employ two fictions of law to secure the property, and permit the return of a captive, the one by the *Lex Cornelia*, and the other by the *Jus Postliminii*. Heinec. Elem. Jur. Civ. fec. ord. Pand. ii. p. 294. Among the negroes the same ideas prevail: no ransom was ever accepted for a prisoner. As soon as one is taken in war, he is reputed to be dead; and he is so in effect to his country and his family. *Voy. du Cheval. des Marchais*, t. 1. p. 369. *Robertson's America*, v. 1. p. 480.

fatal.

fatal. It is the invention of fire arms^a that hath prevented the destruction of the human species, and at the same time contributed more to the establishment^b of

^a Guns were invented about the year 1378, and were first used in England at the siege of Berwick 1405, the year when Tamerlane died. There is not, however, any mention that cannons or fusils were used at the battle of Agincourt in 1415, when Henry V. gained a complete victory; and therefore one may doubt the relation of Rapin, Carte, &c. that they were used at the battle of Cressy in 1346, and the year following at the siege of Calais. Fire arms at sea were first used by the Venetians in an engagement against the Genoese.

^b It is a mortifying consideration to human nature, says a celebrated writer, "that strength has always prevailed over wisdom." The more wealthy and polished kingdoms of the east have ever been a prey to their barbarous invaders. The Trojans, advanced in arts and refinements, yielded at length to the superior strength of the barbarous Greeks; and Darius, with his millions, was unequal to the hardy Macedonians under the greatest conqueror upon record next to Gengis-Can, with this difference, that the latter only destroyed cities, but the former built more than he destroyed. Rome, that owed its population to crimes, and Athens to misery, though by a singular fatality the two most virtuous and most powerful republics of the ancient world, were founded by the wicked and by the weak. Almost all our hemisphere, as far as mount Atlas, has been subdued by Barbarians. The Roman empire was destroyed by them in the 5th century; and they conquered Spain, with all that the Romans were possessed of in Africa. After which, they subjected the Babylonian Caliphs. From the other side of Taurus and Caucasus, to the eastward of the Caspian sea, and from the river Volga to China, and to the northward, as far as the frozen zone, extends that immense tract of country belonging to the ancient Scythians, who were afterwards called Tatars, and by us Tartars, from Teteor-Causmo, one of the most powerful of their princes. Mahmoud, who towards the end of the 10th century conquered Persia and India, was a Tartar. It was from the farther end of Tartary, that Gengis-Can, the greatest conqueror upon record, and who had 500 ambassadors at once in his train, set out at the end of the 12th century on his conquest of India, China, Persia, and Russia: and Batou-Can, one of his sons, carried his incursions as far as the frontiers of Germany. Tamerlane, who subdued so large a part of Asia, was also
a Tartar,

a Tartar, and even a descendant of the family of Gengis-Kan. Thus has this mighty reservoir of barbarous and warlike men spread, at different times, its inundations over almost the whole of our hemisphere; and the people, who at present inhabit those deserts, destitute of all learning, know only that their ancestors have formerly conquered the world. As luxury debilitated the body, those nations, which had advanced the farthest in refinement and effeminacy, became the most easy prey to barbarous nations. It was a saying of Kouli Kan, that those, who had the most gold, were the least acquainted with the use of steel.

But since the invention of guns and gunpowder, strength of body is less essential to the success of an enterprise, than discernment of mind. War, which was once an Herculean labour, is now reduced to a science; and the powers of a Cyclops, the vigour of a Barbarian, or gigantic strength, are in vain opposed to the mouth of cannon when directed with art. It is hence that science triumphs over ignorance, and secures itself a sure asylum. Even among polished nations, the success of an engagement is usually decided with very little slaughter compared with the battles of ancient times. The Marshal Saxe computed the mean quantity of execution from the discharge of 100,000 muskets, at a very small proportion. From Féquiere's History of Wars, and particularly in Sully's Memoirs, we shall find the same fact confirmed. The whole fire of a fortified town was levelled at Sully, in one of his reconnoitering expeditions; and he says, that the bullets, striking against the ground, threw up so much earth upon him, that when he arrived at the camp, he was not at first recollected; and yet he escaped without injury.

A dreadful method of using gunpowder, to the destruction of mankind, was found out during the times of Lewis XII. and Ferdinand the Catholic. While the villainies of Pope Alexander VI. and his son Cæsar Borgia, in the beginning of the 16th century, were acting, Peter of Navarre, a soldier of fortune, and a great general among the Spaniards, discovered the use of mines, and made the first trial of them upon the French. *Oeuvres de Voltaire, passim. Young's Spirit of Athens, p. 15.*

Fire arms are mentioned in Halhed's translation of the Code of Gentoo Laws lately published, as a discovery of the ancients; but there is as little proof in support of it, as of their enormous calculations of the age of the world. Berosus of Babylon, Manetho, and other ancient writers, have admitted the same extravagant antiquity of the world. That of China, so often mentioned by writers, is at length exploded by the annals of that country, now in the Royal Library at Paris. See *Mémoires concernant l'Histoire, les Sciences, les Arts, &c. lately published*

of science than any discovery, except the mariner's compass^c.

at Paris by the Missionaries of Pekin, v. 1. 4to. I consider the supposed discovery of gunpowder by the ancients, as equally chimerical and ill-founded, though credited by that ingenious writer M. Dutens, in his Inquiry into the Origin of the Discoveries, &c. ch. v. p. 262, 263. See also his authorities. Virg. *Æneid*. lib. 6. v. 585, et Serv. in hunc locum. Hyginus Fabul. 61. et 650. Eustathius ad *Odyss.* λ. 234. p. 1682. l. 1. Cerda in Virgil, loc. cit. L. Bat. 1680. 3 vol. 8vo. Flaccus, l. 1. 662. Raphael Volatarran. &c. in Comment. Cornel. Agrippa, &c. de Verbo Dei, c. 100. p. 237. Dio Cassius Hist. Rom. in Caligula, p. 662. Themistius Oratio 27. p. 337. Machab. lib. 1. c. 6. v. 57. *περι των πυροβολων*, et Heron. de hac voce. Philostrat. Vita Apollonii, l. 2. c. 33. l. 3. c. 13. Vossii Variæ Observat. p. 87. 90. A Dictionary Persian, Arabic, and English, by J. Richardson, Esq.

^c Invented in the year 1229, and improved by Flavia Giova or Goia, a Neapolitan, in 1302, who distinguished the touched point by a fleur de lis, which was one of the armorial bearings of the kings of Naples, as being descended from the House of France. The first time we find the use of the compass mentioned with any certainty, is by the English under Edward III. An Oxonian monk, named Linna, or of Lynn in Norfolk, a skilful astronomer for the times he lived in, penetrated as far as Iceland, and drew some charts of the north seas, which were afterwards made use of in the reign of Henry VI.

The Crusades excited a spirit of enterprize in Europe; the discovery of the compass gave it a more extensive scope by the acquisition of a new hemisphere, aided by the genius of Columbus; and the dominion of the seas introduced an intercourse between foreign parts unknown in former times. Travel thus broke in upon national prejudice, and enriched the mental stock of knowledge. It is the general commerce and intercourse with each other, which has given the people of Europe this sudden superiority over the nations of antiquity; a variety of national characters has forced new combinations on that of individuals; and Italian fancy, French wit, English penetration, and German assiduity, have from divers and distant habitations met, united their common labours, and connected and modified their several properties, for the furtherance of every art of utility or entertainment. See Young's Spirit of Athens, p. 22, and 163.

The

The experience, however, which accidents or wars could afford, must have been very flow for want of the collateral knowledge of anatomy, upon which the progress and improvement of surgery must principally depend; we shall therefore next consider the state of this sister art in the early ages of the world, after previously adverting to another department of surgery.

SECTION

S E C T I O N III.

O F M I D W I F E R Y.

ON the first woman it was denounced, “ In sorrow thou shalt bring forth children^d;” and as soon as pain invaded the body, some means of alleviating it would be sought for, which would give rise to the obstetrical art in the first periods of time. The peculiar circumstances attending delivery, and the delicacy of the sex on such an occasion, would naturally introduce the women to assist each other in these critical moments; and mothers, from some share of experience, would be better enabled to perform this important office for their daughters.

There are few operations of the human system more affected by the state of the air, than parturition. In a southern and warmer latitude, the human species is often brought into life without pain or sorrow, the usual attendants of the fair sex in mountainous and cold situations. When the royal mandate went forth against the male offspring of the Hebrews

^d Gen. iii. 16.

in Goshen^e, the midwives were freed from the execution of it, because the Hebrew women were delivered before they came in unto them^f.

A member of this society, who resided some time on the continent of South America, observes, that a difficult or painful birth is scarce ever known, nothing more being necessary than to receive the infant when it spontaneously presents itself, and divide the umbilical vessels; which they do with a brand of fire, that cauterizes their orifices, and renders a ligature unnecessary. After the delivery, the mother and newborn infant are plunged into the water, and the next day the former resumes the discharge of her domestic employments^g.

A modern

^e Exod. chap. i. 15. et seq.

In some parts of Africa, when they took female captives who were pregnant, they cut the infants out of their wombs, that they might have the gratification of crushing them to death. (Bosman. Desmarchais).

A negro, jealous of his wife while she is pregnant, as soon as she is delivered, crushes the infant in a mortar, and throws it to the dogs. (Voyag. de Brue). In the kingdom of Great Benin, some person is sacrificed upon the birth of twins, and sometimes both the infants. Bosman's Guinea, Let. 21. p. 447.

^f Gen. chap. i. 15.

^g Bancroft's Hist. of Guiana, p. 330. Hennepin's Continuation of a New Discovery, p. 87.

In some countries, when the women are delivered, the men lie-in for a certain number of days, keep their bed, and are attended as if under real sickness. Biet. Voyag. de la Terre Equinoxiale, v. 3. ch. 13. Du Tertre, Hist. Nat. des Antil. Traité 7. ch. 1. sect. 4. Thevet, Cosmag. Univer. l. 21. c. 5. p. 916. Lafitau Mœurs des Sauvages, t. 1. p. 257.

A modern traveller, who dates his relation from Palermo in Italy, observes, that, in this happy climate, child-

The custom of the husband's taking to his bed, on the delivery of his wife, was very ancient in Spain and other places, as Diodorus Siculus, Apollonius, and Strabo relate (l. 5. ch. 11. Strabo, l. 4.) *Mulieres, cum pepererunt, suo loco viros decumbere jubent, eisq; ministrant*, says Strabo. Marc Polo and the Jesuits say, that the same practice prevailed in the province of Kardan, and other parts of Tartary, as some travellers have related of the North American Indians. Vid. *Relat. de Froger. Bou langer, Antiq. dévoilée, t. 1.* See also *Voyage de Merolla, Voyage de Kolben, &c.*

Fermin, in his *Description de Surinam, t. 1. ch. 8. p. 81.* speaks of this subject in the following words: "Il est à remarquer que lorsqu' une d'elles (femmes) vient à accoucher, à peine a-t-elle mis au monde son fruit, qu'elle se transporte à la rivièrè, ou à la crique la plus voisine pour le laver; et elle-même s'y lave tout le corps: pendant laquelle opération le pere de l'enfant se met dans le *hamac*, qu'il y reste pendant six semaines pour se reposer des peines qu'il s'est données à procréer ce nouvel être; et que pendant tout ce tems, l'accouchée doit avoir tout le soin du ménage. On le visite pendant ce tems-là, et on lui témoigne qu'on prend beaucoup de part à ses incommodités. Toutes les femmes ont à vrai-dire une grande facilité à accoucher; et pour peu qu'il se présente la moindre difficulté, elles ont recour au suc d'un certain arbre qu'elles connoissent, qui leur procure une heureuse, et prompte delivrance." And in the 12th chapter, p. 130, he says, "J'ai vu même une Nègresse qui, pour avoir commis une faute punissable, reçut cinq ou six heures avant son accouchement, plus de cinquante coups de fouet sur les fesses; ce qu'assurement nous regarderions comme contraire à toutes les loix de l'humanité; et n'en accoucha pas moins heureusement." This species of cruelty the author relates very coolly, and elsewhere quotes the Bible to prove the propriety of slavery; and he likewise makes the observation of washing the infant, as quoted from Dr. Bancroft. *Charlev. Hist. of Paraguay, v. 1. b. 4. Recherches Philosoph. sur les Americains, v. 1. p. 307. v. 2. p. 229. Charlev. Journal Historiq. d'un Voyag. de l'Amerique, t. 3. p. 288. Forster's Translat. v. 2. p. 54. Bossu's Travels through Louisiana, v. 1. p. 307. Peter Martyr, in his seventh Decade, addressed to Sfortia Duke of Milan, says upon this subject: "When the women know it is time to be delivered of the child, they go into the neighbouring wood, and there taking hold of the boughs of any tree with both their hands, they are disburdened without*

child-bearing is divested of all its terrors, and is only considered as a party of pleasure. This circumstance, says

without the help of any midwife, and the mother herself speedily running, taketh the child in her arms, and carrieth it unto the next river. There she washeth herself, and rubbeth and dippeth the child often, and returneth home again, without any complaint or noise, and giveth it suck; and afterwards, as the manner is, she washeth herself and the child often every day." Dec. 7. ch. 9. p. 275. Vid. Dec. 8. ch. 8. p. 304. Confer. Careri, Voy. du Tour du Monde, t. 5. l. 2. ch. 1. p. 139. Wafer's Description of the Isthmus of Amer. p. 158.

The ingenious J. Strange, Esq; in his Travels into Dalmatia, observes, that " the pregnancy and births of those women would be thought very extraordinary among us, where the ladies suffer so much, notwithstanding all the care and circumspection used before and after labour. On the contrary, a Morlack woman neither changes her food, nor interrupts her daily fatigue, on account of her pregnancy, and is frequently delivered in the fields, or in the road, by herself; and takes the infant, washes it in the first water she finds, carries it home, and returns the day after to her usual labour, or to feed her flock. The custom of the nation is invariable in washing the new-born infant in cold water.

It was common among the ancients, as soon as the infant was brought into the world, to wash it with water; whence Callimachus, speaking of Jupiter's nativity, relates that circumstance. (Hymno in Jovem, v. 14.)

As soon as you were born, and saw the light,
Your mother's grateful burden and delight;
She sought for some clear brook to purify
The body of so dear a progeny.

Lycophron, in his account of the murder of Cilla and her son Munus, which was effected as soon as the child was born, says, they died before the boy was *washed* or suckled. (Cassand. v. 319. ubi consulendus Meursii commentarius).

The Lacedemonians bathed their new-born infants, not in water, as was the custom of all other countries, but wine, to prove the temper and complexion of their bodies. (Plutarch, in his Life of Lycurgus). Every nation, both savage and civilized, have adopted certain ceremonies upon
or

says he, we were ignorant of, till the other morning. The Duke of Verdura, who does us the honour of the place with great attention and politeness, came to tell us, we had a visit to make that was indispensable. The Princess Paterno, said he, was brought to bed last night; and it is absolutely incumbent on you to pay your respects to her this morning. At first I thought he was in joke; but he assured me he was serious, and that it would be looked upon as great unpoliteness to neglect it. Accordingly we went about

or soon after the birth of a child. The ancient custom of circumcision, which begun in the east, or some ceremony resembling it, has spread through most parts of the world; but wherever Christianity has been professed, this painful process has generally yielded to that of sprinkling the infant with what is called holy water, and making a cross upon its forehead, as a symbol of its "renouncing the devil and all his works, the pomps and vanities of this wicked world, and all the sinful lusts of the flesh."

There is a most tender scene in Tasso's *Jerusalem* delivered, of Tancred's applying this water to save the soul of his expiring Clorinda, when

A lovely paleness o'er her features flew,
As violets mix'd with lillies blend their hue.

Hoole, b. xii. l. 524.

The people of Loango, and some other parts of Guinea, sprinkle themselves and their houses with this water to keep off sorcery. Poyart. *Hist. de Loango*, t. 1. The Indians, bordering upon the banks of the Ganges, make use of the water of that river for similar purposes. Picart's *Religious Ceremonies*, t. 4. part 2. p. 11. t. 5. p. 26. 28. 30. Vide *Monthly Review*, vol. 41. p. 443. Of the Turks, who make use of water in their devotions, Le Brun says, "Ils portent pour cet effet toujours avec eux un petit pot de cuivre étainé." *Voyage au Levant*, &c. p. 43. At this day they reverence the Nile, as devoutly as the Jews did Jordan, or the Indians the Ganges, as the French factory at Grand Cairo found to their cost for only firing a gun upon that river. Haynes's *Travels*, Let. 8. p. 99. Comp. Holben's *Cape of Good Hope*, v. 1. ch. 8. p. 3. Bosman's *Guinea*, Let. 2. p. 21.

fun-set,

sun-set, and found the Princess sitting up in her bed, in an elegant undress, with a number of her friends around her. She talked as usual, and seemed to be perfectly well. This conversation is repeated every night during her convalescence, which generally lasts about eleven or twelve days. The custom is universal; and as the ladies here are very prolific, there are, for the most part, three or four of these assemblies going on in the city at the same time; probably the Marino^h may not a little contribute towards them.

^h The two great streets intersect each other in the centre of the city, where they form an handsome square called Ottangolo, adorned with elegant uniform buildings. From the centre of this square, you see the whole of these noble streets, and the four great gates of the city. The Porta Felice (by much the handsomest of the gates) opens to the *Marino*, a delightful walk, which constitutes one of the greatest pleasures of the nobility of Palermo. In the centre of the Marino, they have lately erected an elegant kind of temple, which, during the summer months, is made use of as an orchestra for music; and as in this season they are obliged to convert the night into day, the concert does not begin till the clock strikes at midnight, which is the signal for the symphony to strike up: at that time the walk is crowded with carriages and people on foot; and the better to favour pleasure and intrigue, there is an order, that no person, of whatever quality, shall presume to carry a light with him. The flambeaux are extinguished at the Porta Felice, where the servants wait for the return of the carriages; and the company generally continue an hour or two together in utter darkness, except when the intruding moon, with her horns and her chastity, comes to disturb them. The concert finishes about two in the morning, when, for the most part, every husband goes home to his wife. This institution, whatever may be its other effects, the author says, never produces any scandal: no husband is such a brute, as to deny his wife the Marino; and the ladies are so cautious and circumspect on their side, that the more to avoid giving offence, they very often put on masks. Brydone's Tour through Sicily and Malta, Let. 21.

In conversation the other day with the Princess Paterno, she appeared surprized when I told her that we lost many of our finest women in child-bed, and that even the most fortunate and easy deliveries were attended with violent pain and anguish. She lamented the fate of our ladies, and thanked heaven that she was born a Sicilian ⁱ.

The critical moment, however, does not always terminate so happily in temperate climates : the mother of Benjamin affords an early example of fatality from this source, who expired immediately after naming her son ^k : and the bard, whose muse was inspired ^l on the banks of the Scamander, to celebrate the hero of his Iliad, compares the pains which Agamemnon felt, when wounded by the spear of Coön, to that of parturient women :

Then grinding tortures his strong bosom rend,
Lest keen those darts the fierce Ilithyia ^m send ;

The

ⁱ Brydone's Tour, loc. cit.

^k Genes. ch. xxxv. ver. 18.

^l Hipparchus enlarged and amended the Compilation of Homer's Poems undertaken by his father. See the note under Botany and Pharmacy.

^m Nonnus Dionysiæ. Ovid. Fast. l. 11. Theocrit. Idyll. 5. Orph. Hymn. in Dianam.

Aithyia seems to have been a species of sea-coot : a bird of this nature, however, occurs in those specimens of Egyptian sculpture, which have been copied, especially among the engravings from the Pamphylian obelisk.

The powers that cause the teeming matrons throes,
Sad mothers of unutterable woes ⁿ.

Theocritus, in his encomium on Ptolemy, reckons it as an extraordinary blessing, that his mother Berenice brought him into the world without pain ^o. So great an opinion indeed had the ancients of this favour ^p, that the gods were believed to vouchsafe it to
none

obelisk. This bird was held very sacred, as we may infer from personages, who were so called, or had it in the composition of their names. Minerva, heavenly wisdom, had the title of Aithyia; and Orithyia, Idithyia, and Ilithyia, were named from this hieroglyphic. This last was the goddess of the birth; consequently the same as Juno Lucina, and Diana; the same also as Venus Lubentia, and Genetillis, who rose from the sea. When the poet describes Ulysses as nearly lost in the ocean, and struggling with the waves, he makes Leucothoë, the same as Ino, compassionate his distress; and introduces her in the shape of this bird. (Odyss.) See Bryant's Analysis, v. 2. p. 333. 453.

ⁿ Homer. Iliad. l. xi. The Roman Agrippa is a proper name, signifying one who, at his birth, causes great pain, who is born with his feet foremost. *Æger Partus*.

^o Idyll. ζ. v. 56.

————— Thy mother to Lucina pray'd,
To ease her throes, and found a speedy aid;
She came, stood by, and gently loos'd her pain:
Thy very birth was easy as thy reign.

Creech.

^p There were various means adopted in ancient times to procure easy labours, besides that of imploring their deities; one was to hold in their hands palm-branches, tokens of joy and conquest, and used as emblems of persons raised from great afflictions to prosperity. (Homer Hymn. in Apollin. v. 14.) In the second voyage of Columbus to Hispaniola, he observed, that most of the Caciques or Princes possessed three pebbles or stones, which both they and their people devoutly worshipped; one of
these

none but the chaste and virtuous ; whence it came to be looked on as a convincing proof of a woman's purity. Thus we find in Plautus^a, that when Amphytrion expresses his jealous thoughts concerning

these they supposed affected women in child-birth. Vid. P. Martyr de Novo Orbe, Dec. 1. l. 9. p. 53.

The olive-tree at Athens was greatly revered, and reputed of high antiquity. (Pausanias, l. 8. p. 643. Lycophron. Schol. 5. 766.) See Bryant's Analysis, v. 2. p. 320. 412, and his authorities.

The celebrated Boyle agrees with Helmont and Panarola, that the liver of eels produces easy labours. Boyle's Works, v. 2. p. 2. Essay 5. p. 189.

In Persia, when a woman is about to lie-in, the school-masters are requested to give liberty to their boys, and birds confined in cages are permitted to escape.

When the women of Maroc perceive labour-pains, the neighbours select five school-boys, and tie four eggs in the four corners of a napkin, with which the boys run singing through the streets. (Hist. de la Nouvelle France, du P. Charlevoix).

When a woman of Socotora is at the point of delivery, the husband makes a fire at the door of his hut or cabin, and cries with a loud voice, that his wife is about to bring a child into the world. (Davity, t. 5. Maffæus, l. 3. Oforius, l. 5.) Among some tribes in Siberia, when the woman is delivered, the husband takes the placenta, and has it roasted or boiled, upon which he regales himself with his relations or friends. (Voyage de Gmelin.)

In England, when a child is born with the caul or amnion over its face, it is preserved with peculiar care; and is still highly esteemed by many, who think, that the person who has the caul in possession can never be drowned, nor his house be set on fire; and that by its different appearance of dryness and moisture, it may be discovered whether the infant is well or ill.

^a Amphitryon, Act v. sc. 1. Potter's Grecian Antiq. v. 2. p. 32.

Alcmena, this argument is offered to allay his passion :

————— Uxorem tuam

Neque gementem, neque plorantem nostrum quicquam audivimus ;

Ita profecto sine dolore peperit ^r.

In consequence of many painful instances of parturition, it would become necessary to make midwifery a study, and reduce a practice, so important in its consequences, to an art ^s ; which was certainly effected in the time of Moses, throughout many parts of the eastern world, where science was first cultivated, when the practice was solely committed to women, who appear to have early shewn both curiosity and attention in their profession, by the circumstance attending the delivery of Pharez and Zarah, twins of Tamar ^t.

It must have been difficult, first to deviate from employing the female sex, in a department to which

^r Your wife is brought to-bed with ease, since none
Hath heard so much as a groan or sigh come from her.

^s Exod. ch. i. ver. 16. It might be imagined from the words which Moses uses, that the Egyptian midwives used some sort of machine for facilitating delivery : this was probably a kind of chair, on which they placed the mother in the time of labour. The Hebrew word אכנאם Abe-naim, in Latin Sellas, is susceptible of several interpretations. What confirms the explanation of this word, is, that there is frequent mention of such seats for facilitating delivery in physical writers. Vide Suidas, voce, Λοχαῖοι δίσποι, A. 2. p. 461. Goguet, l'origine des loix, l. 3. art. 1.

^t Genes. ch. xxxviii. ver. 29 and 30.

O

delicacy

delicacy seems peculiarly to have allotted them^u; but whether from the ignorance, or any other incapacity of the fair sex, it is observable, says Dr. Potter^w, that the ancient Athenians used none but men-midwives, it being forbidden by one of their laws, that women or slaves should have any concern in the study or practice of physic. This proving very fatal to many women, whose modesty suffered them not to entrust themselves in the hands of men, one Agnodice disguised herself in man's clothes, to study physic under a professor called Herophilus; and having attained to a competent skill in that art, she revealed herself to her own sex, who agreed with one consent to employ none besides her. The rest of the faculty, displeased at their want of business, cited her before the court of Areopagus, as one that corrupted men's wives. To obviate this accusation, she discovered her sex; upon which the faculty prosecuted her with great eagerness, as violating the laws, and encroaching upon the prerogative of the men; when, to prevent her ruin, the principal matrons of the city came into court, and

^u Upon instinctive modesty Dr. Hawkesworth has introduced several philosophical reflections in his History of the late Voyages to the South Seas, upon the subject of the Arreoi dance. See also Ulloa's Voyages, l. 1. p. 412. Hennepin's Continuation of a Discovery, p. 89. Voyage de Brue; de Correal; de Léry. Relat. des Voyages, qui ont servi à l'établissement de la Comp. Holland. t. 5. Joannis Nicolai, de Ritu Bacchanalium. Coll. de Gronov. t. 7. Athen. l. 12. Odyss. l. 4. Boëmii Mores Gentium. History of the Flagellants. Voyage de Gémelli Caréri. Valer. Maxim. de Diis Syr. S. Epiphan. Heres. 27. Demeunier l'esprit des Usages et des Coutumes, t. 2. sur Pudeur, &c.

^w Grecian Antiquities, v. 2. p. 324.

addressed

addressed themselves to the judges, telling them,
 " That they were not husbands, but enemies, who
 " were going to condemn the person to whom they
 " owed their lives." Upon this the Athenians re-
 pealed the old law, and permitted three women to
 undertake this office *.

* Hyginus, Fab. cclxxiv.

SECTION

S E C T I O N IV.

O F A N A T O M Y.

ANATOMY must have been cultivated later than the other departments of medicine, of which we have treated: it was long before men had invented instruments of offence, proper for invading the beasts of the field^y; and much longer before they were domesticated^z in sufficient numbers, to answer the demands of hunger. In the very early periods of the world, the slaughter of animals was not generally practised; the Egyptians of old were totally averse from it, and so were the ancient Greeks^a: but as this
aversion

^y Vid. Hygin. Fab. 274. Diod. l. 1. p. 28. Cedren. fol. 19. Nimrod seems, however, to have been an early exception. He who was capable of subduing the beasts of the field, was worthy of regal government, and we find he was the first king upon earth. See Alorus.

^z Robertson's Hist. of America.

^a In the earliest ages, herbs, fruits, and plants, were the first offerings. The Egyptians, when they went to their temples to perform their devotions, carried a handful of the herb *Agrostis*, in remembrance of the great use it had been of to their ancestors. (Theophr. apud Porphy. de Abstin. v. 2. p. 156. Euseb. Præp. Evang. l. 1. c. 9. p. 28. Bianchini, Istor. Univ. p. 156.) There was a time too, when all their libations were of water, wine not then being discovered. (Hygin. Poet. Astr. l. 2. c. 29. Bianchini,

aversion was subdued by appetite, and men accustomed themselves to slaughter animals for food, the knowledge of anatomy would thence take its rise.

The custom among the ancients of sacrificing animals to their deities, and of deducing auguries from the state of the entrails, must have early contributed to extend the knowledge of anatomy: it was not peculiar to a nation, but was admitted into almost every region of the globe; the learned Chaldeans, the Greeks, and the Peruvians, were equally devoted to this practice, in order to scrutinize into the decrees of heaven, or to avert impending wrath.

Different parts of the body of animals were examined for the purposes of divination and of sacrifice^b; and the manner in which some of them were opened^c, would naturally tend to promote this department of medicine. But the progress of anatomy would be still more accelerated by the cruel practice of offering

Bianchini, p. 307). They came by degrees to offer honey (Theophr. apud Porph. de Abstin. p. 156. Plato de Legib. l. 6. p. 875. Plut. t. 2. p. 672). milk (Ovid. Fast. l. 4. v. 369. Plin. in Præf. p. 3.) oil (Genes. ch. xxviii. v. 18.) wine (Genes. ch. xiv. v. 18.) flour (Plato, Plin. locis citat.) and at last animals, when these were become their ordinary food. (Porphyr. de Abstin. l. 2. p. 125, &c.) See Lord Monboddo on the Origin and Progress of Language, v. 1. Lord Kaimes's Sketches of the History of Man, sect. 1. De la Vega Hist. des Yncas, l. 1. c. 5, 6 and 7.

^b Suidas. Ezekiel, ch. xxi. v. 26. Plin. l. xi. n. 73. Athæn. l. xiv. Galen. Plac. Hipp. et Plat. l. vi.

^c Lambert. Hist. des Peupl. l. xiii. p. 294.

human victims, which prevailed in many nations of antiquity. Though it is said, that the Egyptians did not shed the blood of animals at their altars, human victims must be excepted, which at one period they offered to their gods ^d. The Cretans ^e had the same custom, and adhered to it a much longer time. The nations of Arabia did the same ^f; the Persians buried people alive ^g: the Cyprians ^h, the Rhodians, the Phoceans, the Ionians, those of Chios, Lesbos, Tenedos, had all human sacrifices. The natives of the Tauric Chersonesus offered up to Diana ⁱ every stranger, whom

^d Euseb. Præp. Evang. l. 4. c. 16. Arnobius, l. 2.

^e Porphy. de Abstin. l. 2. p. 224. from Manetho. Athanas. Orat. adversus Gentes. Herodotus, l. 4. says the same of the Scythians.

^f The people of Denmark, in particular, sacrificed every year a child, and buried it underneath an altar, which they worshipped instead of an idol; for they did not admit of images. Porphy. de Abstin. l. 2. p. 225. Comp. Isai. ch. xxi. Bryant's Observations, p. 267.

^g Amestris, the wife of Xerxes, entombed twelve persons under ground for the good of her soul. Plutarch. Περὶ Δεισιδαιμονίας. Among most of the American Indians, whenever a person of rank died, many of his favourites and wives were immolated at his funeral. Charlev. Hist. of Paraguay, v. 1. b. 2. p. 91. b. 5. p. 354. Bossu's Louisiana, v. 1. Recher. Philos. v. 2. p. 210. et seq. with Garcilasso de la Vega, de Solis, and other writers.

Bosman, in the Description of the Coast of Guinea, Lett. 13. p. 231. declares, that he saw twelve persons sacrificed in the most cruel manner; and I have already mentioned (pag. 41.) that one or more persons are sacrificed on the birth of twins.

^h Clem. Alexandrin. Cohort. ad Gentes, v. 1. p. 36. Edit. Potter. Porphy. de Abstin. l. 2.

ⁱ Vide Eurip. Iphigen. in Tauris. In consequence of a similar custom, the

whom chance threw upon their coast. The Pelasgi, in a time of scarcity, vowed the tenth of all that should be born to them for a sacrifice, in order to procure plenty. Aristomenes, the Messenian^k, slew three hundred noble Lacedemonians, among whom was Theopompus the king of Sparta, on the altar of Jupiter at Ithome.

the poet cautions his hero against the music of the Syrens; upon whose coast, if any person is shipwrecked,

No more that wretch shall view the joys of life,
His blooming offspring, or his-beauteous wife!
In verdant meads they sport, and wide around
Lie human bones, that whiten all the ground;
The ground polluted floats with human gore,
And human carnage taints the dreadful shore.

Odyss. l. 12. v. 55.

^k Clem. Alexand. Cohort. p. 36. The Lacedemonians offered like victims to Mars. At their festival of Diamastigosis, the Spartan boys were whipped in the sight of their parents with such severity before the altar of Diana Orthia, that they often expired under the torture. Plutarch. Institut. Lacon. In more modern times, the bloody Muley Ishmael had two hundred children; a nurse brought one of them before him, which fondling upon him, happened to put its hand upon his beard, upon which he seized the infant by the feet, and dashed out its brains against the marble of the chimney.

At Quilacara, in the province of Travancor, the people often make voluntary sacrifices of their lives; and the *Cryers of Amok* cut pieces of flesh off their bodies, till they expire. Picart's Relig. Ceremonies, t. 4. p. 2. and 11.

The female Hottentots cut off a joint of a finger, as often as they become widows: the Californians, who live in another hemisphere, and at the opposite extremity of the globe, and consequently could be no copyists of the Hottentots, practise this very custom, notwithstanding the pious endeavours of the Jesuits, who find it highly convenient that their slaves should have all their fingers and thumbs intire, to put a stop to it. Recherch. Philosoph. Poyart. Hist. de Loango, &c.

The

The Romans were accustomed to the like sacrifices¹: there is reason to think, that all the principal captives, who graced their triumphs, were, at the close of that cruel pageantry, put to death at the altar of Jupiter Capitolinus. Caius Marius offered up his own daughter for a victim to the Dii Averunci^m, to procure success in a battle against the Cimbriⁿ. This

¹ The Romans both devoted themselves to the infernal gods, and constrained others to submit to the same horrid doom. Hence we read in Titus Livius, that in the consulate of Æmilius Paulus, and Terentius Varro, two Gauls, a man and a woman, and two in like manner of Greece, were buried alive at Rome, in the ox-market; where was a place under ground walled round to receive them, which had before been made use of for such cruel purposes. Plutarch makes mention of a like instance a few years before, in the consulship of Flaminius and Furius. Tit. Liv. l. 2. c. 57. Zonaræ Annales, l. 8. c. 19. Plutarch. in Marcello, v. 4. p. 547. Edit. H. Steph. Dionys. Halicarn. Hist. l. 1. Bryant's Observations on Ancient History, p. 269. L'Abbé Millot, Elémens d'Histoire Générale, Seconde Partie, 1773.

In the east, numbers of the bigoted Indians have been known to throw themselves under the chariot wheels of their idol Jagonaut, to have their bodies crushed out of devotion. Sir John Mandeville Nic. de Conti. Linschot. l. 1. c. 44. Gasparo Balby, c. 38. Arth. Dan. Hist. Ind. Or. c. 1. Purchas's Pilgrimage, b. 5. ch. 11. p. 425. Voltaire Mod. and Anc. Univ. Hist.

^m Clem. Alex. Cohort. ad Gentes. Plutarch. Parallel. 20. The bloody and brutal contests of the gladiators, was one of the most fruitful sources of destruction to the human species; though perhaps not quite so fruitful a cause of depopulation as religious persecutions, four of which alone have destroyed more people than are now in Great Britain and Ireland, namely, that of the Manichees by the empress Theodora, that on the feast of St. Bartholomew, the Holy War of Ireland, and Montfort's Crusade. See Voltaire L'Evangile du Jour. vol. 6.

ⁿ Cicero pro Fonteio, sect. 10. Phil. Cluverii Germania Antiqua 1631. El. 251. et Grotius de Satisfactione.

custom

custom was common amongst the Gauls; and it was not till the 657th year of Rome that human sacrifices were forbidden^o. They were revived by Augustus Cæsar on the surrender of Perusia, at the time of the second triumvirate, when he offered up, on the ides of March, three hundred chosen persons, both of the equestrian and senatorial order, at an altar dedicated to the manes of his uncle Julius^p. Heliogabalus offered victims to the Syrian deity, whose worship he introduced among the Romans^q. The same is said of Aurelian^r.

The Gauls and the Germans were so devoted to this shocking custom, that no business of any moment was transacted among them, without being prefaced by the blood of men^s. Similar practices prevailed among all the people of the north of whatever denomination^t. The Massagetæ, the Scythians, the Getæ,

^o Plin. Nat. Hist. lib. 30. cap. 1.

^p Suetonius in Augusto, cap. 15. Porphyr. de Abstin. lib. 2. p. 226. Tertulliani Gnost. cap. 7.

^q Xiphilin. in Heliogab.

^r Vopiscus in Aureliano. Conf. Euseb. Præp. Evang. lib. 4. cap. 15. Porphyr. lib. p. 225.

^s Lucan. Pharsal. lib. 1. v. 444. Cæsar de Bello Gallico, lib. 6. Tacitus Animal. lib. 13. cap. 57. and lib. 1. cap. 61. Ereci Olai Hist. Suecorum Gothorumque, Holmiæ 1654. p. 2.

^t Jornandes de Rebus Gestis. Procopius de Bello Goth. lib. 2. Helmoldi Annales Sclavorum, lib. 1. c. 53. Dithmar. Episc. Mersburg. lib. 1. p. 12. Tacit. Annales, lib. 14. c. 30.

the Sarmatians, the Suevi and Scandinavians, held it as a fixed principle, that their happiness and security could not be obtained, but at the expence of the lives of others ^u. The Academic Upsal ^w, which a Linnæus lately illuminated with the noble glow of science, was once the seat of the most cruel sacrifices.

Among the nations of Canaan, their own children, and whatever was nearest and dearest to them, were deemed the most worthy oblation to their gods. The Carthaginians, who were a colony from Tyre, carried with them the religion of their mother country, and instituted the same worship in the parts where they settled; it consisted in the adoration of several deities, but chiefly of Chronus, to whom they offered hu-

^u Hachenberg. *Germania Media*, p. 286. Step. Stephanus in *Lib. tert. Saxon. Gram.* p. 93. Olaus Magnus, lib. 3. c. 7. Crantzius, lib. 5. cap. 12, 13. Tacitus de *Mor. German.* cap. 40. Adam. *Bremenensis de Situ Daniæ*, cap. 233. Strutt's *Complete View of the Manners, Customs, Arms, Habits, &c. Verftigan's Antiquities.*

^w Schefferi *Upsal.* cap. 16. Olai Wormii *Monumenta Danica*, lib. 1. cap. 5. A grand annual celebration was kept here, which continued for nine days. During this term they sacrificed animals of all sorts; but the most acceptable victims, and the most numerous, were men. Olai Magni *Hist. de Gent. Septentrion.* Epitome, lib. 3. cap. 5. Antwerp. 1558. See also *Voyages to Barbary for the Redemption of Captives*, p. 28 and 33. and the affecting *Distresses of the Family of Du Bourg*, a name deservedly celebrated in France. Voltaire's *Ancient and Modern History.* *L'Evangile du Jour*, v. 10. *Historical Memoirs of the Author of the Henriade.*

man sacrifices, and particularly children *. The Egyptians selected the most unblemished and handsome persons to be sacrificed. The Greeks called the deity, to whom these offerings were made, Agraulos; it was the Moloch of the Tyrians and Canaanites, the Melech of the East, and the Alorus of the Egyptians.

The manner in which the victims were slaughtered, was different in different places. In some with circumstances of great barbarity †, and by no means conducive

* Ennius. This was also practised in Europe. Harold the son of Gunild, the first of that name, slew two of his children to obtain a storm of wind, to disperse the shipping of Harold king of Denmark. Verstegan. Antiq. Antwerp. 1605. p. 81. Conf. Saxo Grammaticus, l. 10. p. 185. Soræ 1641. Olaus Wormius, p. 28. Conf. Garcillasso Hist. des Yncas, l. 4. ch. xv. p. 374, 375. De Solis Conq. of Mexico, v. 1. l. 3. ch. vi.

† Some of the Gaulish nations chined them with the stroke of an axe. (Strabo, lib. 4. p. 303.) The Celtæ placed the person, who was to be offered for a sacrifice, upon a block or an altar, with his breast upwards; and with a sword struck him forcibly across the sternum: then tumbling him to the ground, from his agonies and convulsions, as well as from the effusion of blood, they formed a judgment of future events. Diod. Sicul. lib. 5. p. 308. The Americans, agreeable to all historians, exceed all the ancient nations in their cruelty towards their captives; sometimes, particularly among the southern Indians, even after feasting and caressing them, and appointing young women to attend and solace them. On a day appointed, the victorious tribe assembles, when the captive is brought forth with great solemnity, and killed with a club. The moment he falls, the women seize the body, and dress it for the feast. They besmear their children with the blood, in order to kindle in their bosoms a hatred of their enemies, which is never extinguished, and all join in feeding upon the flesh with amazing greediness and exultation. Among the northern Indians, their cruelty towards their prisoners is infinitely greater, the bare relation of it is enough to chill the heart with horror; it has been described by many writers, and with great warmth of colouring by Dr. Robertson, in his Hist. of America, v. 1. p. 359. See also p. 362. We read, that a chief

ducive to the knowledge of anatomy. The Cimbri ripped open the bowels, and from thence they drew their divination²: and in different nations different viscera were examined to answer these superstitious purposes, each of which probably contributed to accelerate their anatomical knowledge; for the curiosity of the priests appears to have been early excited by the wonderful construction of the animal system. The Peruvians, who do not seem, even in the 15th century, to have acquired much anatomical or medical skill, had learned to inflate the lungs of animals, by means of an incision made in the *aspera arteria*, and formed their presages during the tumescence of that viscus³. The Hottentots, who still continue the most uncivilized and indolent race of mortals, carefully attended to the motions of the heart whilst the animals were expiring, and from thence collected their auguries and divinations. The Chilese treated

chief of Siberian robbers, after giving the plunder to his associates, used to delight himself in punishing those unfortunate persons who fell into his hands: he undressed them, tied them to stakes, and then opened their breasts opposite their hearts, and the convulsions of these victims, he acknowledged, afforded him the greatest pleasure. (*Voyage de l'Abbé Chappe*).

² Strabo, lib. 7. p. 451.

³ Lambert. *Hist. des Peupl.* lib. 13. p. 249. Conf. Antonio de Solis *Conquest of Mexico*, b. 3. ch. 17. b. 5. ch. 23. Garcillasso *Hist. des Yncas*, t. 1. l. 1. ch. 11. p. 43. t. 2. l. 6. c. 21. p. 81, 82. This last author mentions, that when Hyayna Capac was in his last illness, he ordered his body to be opened, and the entrails removed to another province, &c. v. 2. l. 9. ch. 15. p. 414.

their

their prisoners with peculiar barbarity, and converted their very bones into instruments of music ^b.

There is abundant reason to conclude, that a considerable degree of anatomical knowledge was thus accumulated in very early periods of the world: this is confirmed by Homer, that celebrated poet and priest, whose accuracy of describing many parts of the body, is equalled only by the dignity of his style; at an æra when anatomy had not been cultivated as an art, or any other dissections admitted, but such as are referred to sacerdotal rites.

It is likewise probable, that some anatomical knowledge would be acquired by the barbarous custom of

^b Unhappy they who fall into the power of the Chilese, says Frezier, for they draw out their hearts, which they cut in pieces, and wallow in their blood like wild beasts. If it happen to be a man of any note, they put his head upon the point of a pike, afterwards drink out of the skull, and at last make a dish of it, which they keep for a trophy; and of the leg bones they make flutes for their rejoicings. *Voyage du Frezier*, p. 64. Father Hennepin makes the same observation in his *History of a New Discovery*. So likewise does Gem. Careri *Voy. du Tour du Monde*, t. 5. ch. 6. p. 68. and the *Jesuits Letters by Lockman*, v. 1. p. 94. In some eastern countries skulls have been used as dishes. *Hist. Relat. de Rege Mager*. Purchas's *Pilgrimage*, b. 5. ch. 5. p. 404. In Sumatra they have been said to pass current as money. Nicolo de Conti. Purchas's *Pilgrimage*, b. 5. ch. 17. p. 457. The Florida Indians, after a battle, cut off the arms and thighs of their slain or captive enemies, and preserve them as trophies in their cabins. (Bel. de Laudonniere et de Gourgues). The victorious Thracians used formerly to cut off the heads of their enemies slain in battle, which they suspended in the air, and danced and sung round the trophies. (*Hist. Anc. des Peuples de l'Europe*, par M. le Comte du Buat, t. 3.) The king of the Huns, in combat killed the king of Yve-chi, whose skull was used as a vessel upon all grand ceremonies. (*Hist. Anc. des Peuples de l'Europe*, t. 3.)

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feasting

feasting upon human flesh, which prevailed in many parts of the world, and is still continued by some rude nations at this time^c.

The

^c Most of the late voyages to the South Seas contain the most undeniable proofs of the existence of Cannibals, particularly at Bolabola and New Zealand, as appears by Hawkesworth's Voyages, *passim*; Parkinson's Journal, and Cook's Voyage.

When the Europeans first discovered America, the custom of eating captives was very general.

When the Cacique of Zempoala had offered his friendship to the Spaniards under Cortes, the emperor Montezuma demanded of the Cacique, as an expiation for his crime, twenty Indians to sacrifice to his gods. De Solis, l. 2. c. 9. 11. The same writer, ch. xii. describes a festival at Zempoala, where the Indians celebrated a sacrifice of human blood; and afterwards those unhappy victims were sold cut out in pieces, which were fought after, and bought as sacred food.

At Tlascala, in their way to Mexico, the Spaniards liberated many miserable captives, who were to die on their festivals, and broke up several prisons and cages where they were kept and well fed, that they should be brought in good condition to the table, l. 3. c. 3. At Cholula, before the Indians ventured to attack the Spaniards, they sacrificed in the great temple of the city ten children of both sexes, l. 3. ch. 6. Some writers say, that Montezuma sacrificed annually to his idols near twenty thousand captives, and other victims, who were afterwards served up to the table of the emperor and his nobles. In one of the temples near Mexico the walls were said to be an inch thick with human blood, and the floor a foot thick. The priests went daily into those oratories, and suffered none but great personages to enter; and when any such went in, they were bound to offer some man to be sacrificed. In the principal temple, which contained their two most famous deities Vitzliputzli and Zeccatlipucatl, was a kind of theatre, on the top of which seventy poles were erected at the distance of five feet from each other, and each of them was full of staves from the foot to the top. Each of these staves had others made fast to them, and every one of them had five skulls broached through the temples suspended upon them, amounting, an. 1519, in the whole to 136,000 skulls.

The sacred historian, who lived to the age of 110 years, had been dead five years before the foundation
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skulls. *Hist. Gen. des Voy. et Conq. des Castillans*, traduite de l'Espagnol d'Antoine d'Herrera, par N. de la Coste, 4to. tom. 2. p. 538. 540. Gage's *New Survey*, p. 118. Cortez, *Conq. of New Spain*, p. 177. 203. 206. and particularly 334. 339. 385. 387. 392. To *Viztliputzli*, the god of war, the principal veneration was paid, to whom children and virgins were weekly sacrificed; they were pierced in the breast, to get to the heart, which was offered to this idol. The Mexicans had about 2000 idols besides these. L'Abbé Poyart, in his *Histoire de Loango, Kakonego, et d'autres royaumes d'Afrique*, intimates, that human victims to the manes of the kings of Laongo is unknown; and Dr. Robertson is of opinion, that the number of victims sacrificed at Mexico, is much exaggerated by some Spanish writers upon this subject. He refers to *Stadius ap de Bry*, v. 3. p. 123. Lery, *ibid.* p. 210. Biet, p. 384. *Lettres Edifiantes*, v. 23. p. 341. *Condamine*, p. 84. 97. Ribas, *Hist. de los Triumph.* p. 473. *Life of Columbus*, p. 529. *Mart. Dec.* p. 18. *Tertre*, v. 2. p. 405. *Dumont*, *Mem.* v. 1. p. 254. *Charlev. Hist. Fr.* v. 1. p. 259. v. 2. p. 14. v. 3. p. 21. *De la Rotherie*, v. 2. p. 298. Blanco, *Conversion de Piritu*, p. 28. *Bancroft. Nat. Hist. of Guiana*, p. 25. But he might have referred to the *Recherch. Philos.* v. 1. p. 217. 227. as the most satisfactory work on this subject. See Dr. Robertson's *America*, v. 1. p. 361. and 487. Gemelli Careri relates, that 20,000 persons were annually sacrificed to the Mexican deities. Four priests laid hold of the victim's hands and feet, while a fifth opened the breast, and tore out the heart, which was offered to the idol; and a sixth supported the neck, having first placed the shoulders upon a sharp stone. *Voy. du Tour du Monde*, traduit par L. M. N. t. 6. ch. vi. p. 76. National partiality and bias renders history in all ages very doubtful. Voltaire, in his *History of England in the 16th century*, says, that the gates of London have been loaded with human skulls like the walls of the temple of Mexico.

When Cortes first visited Yucatan, he met with Jerom de Aguilar, a native of Europe, who, with Marina his Indian slave, had a considerable share in the success of his operations against Mexico. Aguilar, being at Darien, had been sent to Hispaniola for men and ammunition, but was cast away near Jamaica, when he and twenty other persons taking to the boat, after suffering great distresses, reached the shore of Yucatan, where they fell into the hand of a Cacique, who immediately sacrificed six of them to his idols, and then eat them. He and some others were shut up
in

of Troy was laid by Scamander, and consequently half a century before the deluge of the supposed Deucalion,

in a wooden cage, to serve for another festival; from whence, however, they escaped.

The Brasilians make up a heap of the heads of their enemies taken in battle, and shew them to strangers with great pleasure; they make flutes of the bones of the thighs and arms, and necklaces of the teeth. (*Voyage de Lery*).

The grandees of Cupang in the isle of Timor, suspend upon stakes, at the top of their houses, the heads of their enemies whom they have killed with their own hands. (*Dampier's Voyages*). Atkins says, that the natives of Akim have their habitations paved with skulls; and Lamb declares, the king of Juida in Guinea has two palaces paved in this manner, each of which is as large as St. James's Park, about a mile and a half round. The ancient Celti preserved in their houses the heads of those they had vanquished in single combat, which they never failed exhibiting to all strangers. (*Herod. l. 4. See also Snelgrave's Voyages, and Coll. de Bry*). Soliman Bacha, in 1539, attacked the Portuguese settled in India, and decapitated 146 of them, whose heads he sent as a present to the Grand Seigneur. (*Prevôt. Hist. Gen. des Voyages, t. 1.*) This species of anatomy seems to have been both ancient and general, and continues in the east at this time. Tamerlane was said to have built a pyramid of the heads of his enemies.

When a soldier of Cochin-China is to suffer death for the crime of high treason, he is tied to a stake, and each of his comrades cuts a piece off him. (*Rel. de Rhodes*). The custom of scalping, which was of very early origin among some tribes of Indians, is still encouraged by Europeans. The English have even offered one hundred pounds for the scalp of an Indian. (*Hutchinson's Hist. of the Colony of Massachusetts Bay*).

The Huns boast, with the utmost exultation, of the number of enemies whom they have slain; and as the most glorious of all ornaments, they fasten the scalps of those who have fallen by their hand to the trappings of their horses. Robertson's *Charles Vth. v. 1. p. 241. apud Ammian. Marc. lib. 31. p. 447. edit. Gronov. Lugd. 1693.*

calion, affords us a striking instance of the anatomical knowledge of the Hebrews, in the ordinances instituted

The Incas of Peru had nearly abolished this cruel custom of human sacrifices before the arrival of the Spaniards, though in some provinces with much difficulty, particularly in Hanco-Hecalla, or Villca; upon which Garcilasso de la Vega, in his *Histoire des Yncas*, t. 2. l. 4. ch. 15. p. 374, 375. says, "Les habitans sacrifioient des enfans à leurs Dieux dans leurs fêtes principales." He adds, "Ils ne quitterent qu' à regret leur abomination, parce que le diable leur avoit mis dans l'esprit que cette d'immoler des enfans lui étoit le sacrifice le plus agréable." Conf. t. 1. l. 1. ch. 11. l. 3. c. 23. l. 2. ch. 8. p. 144, 145. l. 6. ch. 21. p. 77. et suiv. ch. 22. p. 52. Hennepin's *New Discovery*, p. 48. D'Acugna's, *Acarete's*, and Bechamel's *Voyages and Discoveries*, p. 27. 2. 26. Gage's *New Survey*, p. 60, 71; in which he relates, that the Indians of Tapeacac, in league with the Mexicans against Cortes, surprized twelve Spaniards, and sacrificed them alive to their idols, and eat their flesh. And the brave Tlascalans, after frequent defeats, and from fear of and respect to Cortes, sent him a present with this message: "Behold here five slaves; and if thou be that rigorous god, that eateth man's flesh and blood, eat these which we bring thee, and we will bring thee more." It was common for these Indians to sell little children about the streets for the purpose of sacrifice. Cortez Conquest of New Spain. Herrera par de la Coste, v. 2. p. 441, 442. This idea, perhaps, might be confirmed, from the great appetite of the Spaniards compared to that of the Americans. The former were astonished with observing this, not only in the islands, but in several parts of the continent. The constitutional temperance of the natives far exceeded, in their opinion, the abstinence of the most mortified hermits; while, on the other hand, the appetite of the Spaniards appeared to the Americans insatiably voracious; and they affirmed, that one Spaniard devoured more food in a day than was sufficient for ten Americans. Charlev. *Hist. de Nouv. Fr.* t. 3. p. 310. Ramusio, t. 3. p. 304. F. 306. A. Simon *Conquista*, &c. p. 39. Hakluyt's *Voy.* v. 3. p. 468. 508. Herrera Dec. 1. v. 2. c. 16. See the Authorities in Robertson's *America*, v. 1. p. 292. Labat, who says that the Caribbs eat human flesh, adds, that they prefer that of an Englishman to a Frenchman or Spaniard, as being more delicate and palatable. The Sharks, according to this author, give the English nation the same preference. *Nouv. Voyage aux Isles*, t. 1. ch. 20. p. 470. He attributes this preference to the stronger perspiration of the English, and not to the whiteness of their skin, for which they have been long distinguished from other nations. In the Crusades,

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tuted respecting the passover, when the lamb was ordered

when people from every part of Europe were assembled together, the English were remarked for the whiteness of their hands, in which respect they still excel all the world.

The Iroquois Indians deemed the neck of their human victims the finest eating; the Caribbs preferred the legs and thighs. (P. Martyr.) They never eat any part of women or girls. The dogs employed by the Spaniards against the Indians paid the same deference to the female sex. See section V. Recherch. Philos. v. 1. p. 226. Voyage to the Island of Mauritius, &c. p. 102.

The North American Indians have an adage, "that an enemy tastes sweet;" and a similar sentiment has been affirmed of European Barbarians. Thus Father Daniel relates, that when the dead body of the great Coligni, who was massacred at Paris on St. Bartholomew's day, was hanged upon the gibbet of Montfaucon, Charles IX. went to feed his eyes with this cruel spectacle, saying, "That the body of a dead enemy always smelt well." It was the speech of the corpulent emperor Vitellius: *Qui abhorrentes quosdam cadaverum tabem, detestabili voce confirmare ausus est; optime olere occisum hostem, et melius civem.* Suet. in Vitel. What will not rage and animosity perform! At Paris the liver and lungs of the Marechal d'Ancre were devoured, and in Holland the heart of De Wit had the same treatment. To avoid augmenting quotations upon the subjects of Cannibalism, and of human sacrifices, I shall refer the reader to the following authors. On the first, see P. Martyr de Novo Orbe, Dec. 1. l. 1. p. 10. l. 2. p. 15. l. 8. p. 116. Dec. 2. ch. 3. p. 7. ch. 8. p. 87. Dec. 3. ch. 3. p. 110. ch. 9. p. 145. ch. 10. p. 149. Dec. 5. ch. 10. p. 232. Dec. 8. ch. 8. p. 296. Charlev. Hist. Gener. de la N. France, t. 1. l. 2. p. 53. Hist. of Paraguay, v. 1. b. 1. p. 28. Jesuits Travels, by Lockman, v. 1. p. 94. v. 2. p. 458. and n. Bossu's Louisiana, v. 1. p. 337. Recherch. Philos. v. 1. p. 217. 224. 227. Memoires de M. du Mont sur la Louisiane. L'Histoire de la Louisiane, par le Page du Pratz. Recueil de l'Abbé de Longuerue, p. 17. Condamine, Voyage de la Riviere des Amazones, p. 84. 99. On the second (human sacrifices), see P. Martyr, Dec. 5. ch. 1. p. 175. ch. 3. p. 189. ch. 4. p. 198. Dec. 6. ch. p. 241, 242. Charlev. Hist. of Paraguay, v. 1. b. 2. p. 91. Recherch. Philos. v. 1. p. 94. mentioned by Marco Paulo of the inhabitants of Xandu and Concha. Voyage de Perse, t. 3. p. 12. 4to. Purchas's Pilgrimage, b. 5. c. 4. p. 399. 451. 454. 455. ch. 16. p. 454. b. 9. ch. 5. p. 707, 708.

ordered to be dissected *without breaking a bone thereof*^d.

Many casualties and incidents must have concurred to promote this knowledge: the frequent occasions of practising the chirurgical art, would gradually render mankind better acquainted with the structure and mechanism of the body^e; and accidental circumstances would afford additional aid; for many skeletons of animals, and also of men, have been formed from putrefaction, from the voraciousness of carnivorous animals^f, or the rapacity of insects, which have destroyed

The reader may consult many other authorities upon the subject of the Anthropophagi; as, Valentyn's Relation of the Inhabitants of Nouffa Laout near Amboyna. Adams's Voyage to the Isles near St. Marc, in 1598. Of the Inhabitants of Cayenne, Voyage de Froger. Of the Caribbs of Guadaloupe, Voyage of Columbus. Voyage à la Riviere des Amazones de M. de la Condamine. Voyage d'Arcuna et d'Artieda. Of Brasil, by Laët Knivet. Of the Mexicans, by Gomara. Of the Peruvians, by Pizarro. Of the Scythians, by Herodotus. Of the ancient Galates. Boëmiï, Mores Gentium. Of the Tartars, by Marco Polo. Of the Negroes of Sierra-Leona, Barbot, Descript. de la Guinée. Of the Ivory Coast, Voyages de Loyer et de Villault. Voyage de Brue. Phillips's Voyage. See also Snelgrave's Voyage. Rel. de Pigafetta. Roemer. Description de la Guinée.

^d Exod. ch. 12. v. 46.

^e Homer. Iliad. lib. 5. 8. 13. Odyss. lib. 9.

^f Don Antonio de Ulloa, v. 1. l. 1. ch. 7. gives a curious account to this purpose in the History of the Gallinazos, a bird so frequent in South America, and at the same time so tame, that it is not uncommon to see the ridges of the houses covered with them. They have so quick a scent, that they will smell, at the distance of three or four leagues, a dead carcase, and never leave it till they have entirely reduced it to a skeleton. The translator, who resided some time in those parts, adds, that it is surprising

destroyed the flesh ^g, and left the bones and cartilages entire : these have been preserved in temples ^h, which were

prizing to see what numbers of these birds gather round the carcase of a dead whale, which is no uncommon thing on these coasts. The carcase is covered with them ; and yet their number is small, in comparison to that hovering about, waiting for their turn, for which they often fight. They are seldom above a fortnight in making a skeleton of a large whale, v. 1. p. 57 and 58. n. The same author, who travelled over the mountains from Truxillo to Lima, being 264 leagues, observes, that the road all along, is rather distinguished by the bones of the mules, which have sunk under their burdens, than by any track or path. The manner of the mules sliding down the declivities of these mountains is astonishing. The mules themselves are sensible of the caution requisite in these descents ; for, coming to the top of an eminence, they stand still awhile, and having placed their fore feet close together, as in a posture of stopping themselves, they also put their hinder feet together, but a little forwards, as if going to lie down. In this attitude, having as it were taken a survey of the road, they slide down with the swiftness of a meteor. All the rider has to do, is to keep himself fast in the saddle without checking his beast ; for the least motion is sufficient to disorder the equilibrium of the mule, in which case they both unavoidably perish. The address of these creatures is here truly wonderful ; for, in this rapid motion, when they seem to have lost all government of themselves, they follow exactly the different windings of the road, as if they had before accurately reconnoitered, and previously settled in their minds, the route they were to follow, and taken every precaution for their safety, amidst so many irregularities. There would indeed otherwise be no possibility of travelling over such places, where the safety of the rider depends on the experience and address of his beast, v. 1. b. 5. ch. 1. p. 202. v. 2. b. 7. ch. 2. p. 27. Confer. Hennepin's Continuation of a New Discovery, p. 68.

^g Vid. Rhedi de Gen. Inft. Adanson's Voyage to Senegal, p. 296. Hasselquist's Voyage up the Levant. Philosophical Survey of Animal Creation, p. 66. and 78. Shaw's Travels into Barbary. Journal des Sçavants, Dec. 1742. Exod. ch. viii. v. 24. Hanway's Travels, ch. xix. p. 85. Sloane's Jamaica, vol. 2. p. 81. Intr. according to whom, the rapacity of the insects is so great, that a child being left in the cradle, on the nurse's return, she found it dead, and almost dissected by them. See also v. 1. Introd. p. lxviii. and p. lxxxii.

^h Pausanias, lib. 1. et 5. Volckman Reisenach. Ital. 1. p. 480. Plin. lib.

were formerly the principal seminaries of science, and of medicine in particular.

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lib. 4. Conf. Radzivil. Iter Palæst. p. 135. Hariot. Virgin. Mœurs des Sauvages, t. 2. p. 389. Boyle's Hist. of the Air, p. 182. It has been related, that the Egyptians introduced the figure of a dead person at their feasts. Herod. lib. 2. p. 78. Plutarch. Isid. Ofirid. ζ. Conf. Goguet Hist. des Loix, vol. 1. p. 204. n. who does not credit this relation, though Herodotus is so particular, as to quote the expressions, which, he says, the Egyptians used upon this occasion. "Look upon this; then drink, and rejoice; for thou shalt be as this is." Unnatural as this custom may appear, Father Hennepin, one of the earliest missionaries who visited the inland parts of North America, gives us an example among the Illinois and Indians near the lakes, not very dissimilar. "One of the chiefs carried with him the bones of one of his deceased friends, which he kept very choicely in the skin of a beast, adorned with several red and black lists of a Porcupine's quills. He would be from time to time assembling his followers to make them smoke; and then would he send for us one after another, and oblige us to cover the bones of their deceased with some of our European merchandize." A New Discovery of a large Country in America, p. 159. And at p. 169, he says, "Aquipaguetin's son, who called me brother, had got my brocade chasuble, and was strutting up and down with it upon his naked back. He had wrapped up in it the bones of a man, who had been very considerable amongst them, and for whose memory they had still a wonderful respect. The priest's girdle, which was made of red and white wool, with two loops at the end, served him to fasten it, whilst he carried it up and down in triumph. After they had for some time used my chasuble as an ornament to cover the bones of their dead, at the celebrating their most solemn rites, they made a present of it to people in alliance with them, who lived four or five hundred leagues distant towards the west, but were come in embassy, and had danced the calumet."

In D'Acugna's Discovery of the River of Amazons, ch. 42. the author mentions the veneration which the natives entertain for their wizards, of whom he says, The Indians keep the dead bones of these forcerers with as much veneration as if they were the reliques of saints, p. 98 and 99. This author also confirms Hennepin's account respecting their keeping the remains of the dead like the ancient Egyptians, p. 99.

I do not consider the ancient custom amongst the

In the relation of Monf. Acarete du Biscay's Voyage up the River de la Plata, and from thence by land to Peru, anno 1657. he speaks of the natives of Peru along the river, of whom he says, that when a relation dies, they rub his body with a certain earth that consumes all but the bones, which they preserve, and carry as many of them as they can conveniently about with them in a sort of chests, and this they do in token of their affection to their kindred, p. 28. Confer. Herrera par de la Coste, tom. 2. p. 39. and many other writers, particularly P. Martyr de Novo Orbe, Dec. 1. l. 8. p. 47. Dec. 2. ch. 3. p. 71. Dec. 3. ch. 4. p. 114. Dec. 4. ch. 8. p. 170. ch. 9. p. 308. The custom of the Egyptians at their feasts, which I have quoted from Herodotus, and which has been objected to by Goguet, is confirmed by the practice of watching the dead, common at this day among some of the lower class of people in the metropolis, and particularly in the neighbourhood of Rosemary-lane, where the Irish abound.

The deceased person is laid out upon a table, or in a shell, in the center of a room; a sheet is thrown over him, and a plate of tobacco, and another of snuff, is laid upon his breast, for the use of the company who assemble to watch the dead: each of them, upon entering the room, put down a certain sum of money for a common fund, to support the expence of feasting, and of smoking, which continue till all the company are drunk; they then make a dreadful howling or shrieking after the manner of the wild Irish, either in the room, or in the open street, into which they sometimes withdraw, to invite new guests to assist them in thus watching the dead.

Watching with a corpse was an ancient custom of the church, and every where practised. They were wont to sit by it, from the time of its death to its exportation to the grave, either in the house it died in, or in the church itself. It is called the *Lake-wake*; a word derived from the Anglo-Saxon *Lic*, or *Lice*, a corpse, and *Wæcce*, a wake, vigil, or watching. It is used in this sense by Chaucer, in his *Knight's Tale*:

Ne howe that Arcite is brent to ashen colde,
Ne howe that there the lyche-wake was holde
All that night long.

Fol. 11. Ed. 1542.

See Brand's *Observations on Popular Antiquities*, ch. 2. p. 21.

Egyptians,

Egyptians, of embalming the dead ⁱ, as any considerable source of anatomical science; the method of conducting the process would preclude it; the person who performed it, fled as soon as he had done his office; and all who were present pursued him with stones, as one who had incurred the public malediction; for the Egyptians regarded, with horror, every one who had offered any violence to a human body ^k. The entrails were not replaced again in the body, but, from a religious motive, they were cast into the Nile ^l. It was certainly more conducive to botanical and chemical knowledge than to anatomical.

Egypt, to whom the invention of most other sciences is ascribed, has been considered also as the source of anatomy and surgery; and Apis, one of her kings, is celebrated as their inventor ^m. The Egyptians pretend that Athotis, one of their first sovereigns, had written several books on anatomy, in which he treated of the manner of dissecting bodies ⁿ; and among the great variety of books attributed to Hermes, there

ⁱ Vid. Herod. lib. 3. Diod. Sicul. lib. 1. c. 9.

^k Diod. Sicul. lib. 1. p. 102.

^l Plutarch, t. 2. p. 159. Porph. de Abstin. l. 4. p. 380. Sext. Empir. lib. 3. c. 24. p. 184.

^m Agrippa de Vanit. Scient. c. 85. Alex. Strom. lib. 1. p. 362. Theodoret. Sermon. de Curand. Græc. Affect. p. 467.

ⁿ African. et Euseb. apud Syncell. p. 54.

were

were fix on medicine, the first of which related to anatomy ° : but when it has been considered who these personages

• Galen. Introd. seu Medicus. Herodot. *passim*.

It is astonishing how ignorant of medicine, surgery, and anatomy, these eastern nations are at this time. Haynes's Travels into several parts of Turkey, Egypt, and the Holy Land, published so lately as the year 1774, though not a work of erudition, fully evinces their ignorance. See p. 61. Letter 6. dated from Grand Cairo, an. 1766. Niebuhr, in his Voyage to Arabia, &c. lately published, mentions how their party of Europeans got into great repute. M. Cramer, the physician, became famous by means of a vomit, which cured a man of some eminence. An Emir hereupon sent his horse to M. Cramer, and he thinking it was brought to fetch him, was going to mount it; but he was told the horse was ill, and sent to be cured: luckily an European servant, who had been some years an hussar, understood a little farriery, cured the horse, and the hussar was afterwards applied to by various sick people. Several old rich Arabs offered M. Cramer handsome sums, if he could strengthen and qualify them to deprive some young female slaves of their innocence; but the doctor's skill was to no purpose. Tournefort, in his *Levant*, says, that the physicians of the seraglio at Constantinople feel the pulse of the patient, whose arm is covered with gauze, and he is not allowed to ask any questions. Even the rude custom, which was practised prior to Homer, of exposing the sick in the temples (pag. 18.) still continues. The renown and worship of the Grecian *Æsculapius*, which began at Epidaurus, continued for many centuries. Since he failed, adds Dr. Chandler, in his Travels to Asia Minor, some saints have succeeded to the business, and I have seen patients lying in beds in their chambers at Athens. The same author confirms this observation upon the influence of habit, by a fact to which he was an eye-witness; when in an excursion, he accidentally met a female in a sequestered situation, sitting in her shift only, and her face exposed, who, upon seeing Dr. Chandler, immediately threw up her shift to hide her face, agreeable to the custom of the country.

In Grand Cairo, at this day, there is not one physician among all the natives of that great city. They depend more upon the virtue of reliques than upon medicine: pieces of garments that have touched the pilgrim camel, which carries the Grand Seignior's annual present, are preserved with

personages were, the merit of the invention will appear vague and hypothetical.

Some of their kings^p undoubtedly directed bodies to be dissected for the improvement of anatomy ; but this does not relate to the ancient kings of that country ; it was posterior to the æra I am now considering. Alexander, who, after he had destroyed Tyre, endeavoured to raise Alexandria in Egypt upon the ruins of the ancient capital of Phœnicia, began there to patronize those who applied themselves to natural history, and particularly Aristotle his tutor. Ptolemy Soter, or Ptolemy the son of Lagus, succeeded Alexander, not less in his disposition to promote the advancement of useful knowledge, than in the government of this part of his empire. Ptolemy was a man of science, and his son Ptolemy Philadelphus, who succeeded him, was the great Mecænas of Alexandria, and founder of a medical school, and of the immense library there, which was afterwards wantonly destroyed.

with great veneration ; and when any of their families lie dangerously ill, they lay these things upon their bodies as sovereign remedies. Haynes's Travels, Let. 7. pag. 90. They consider, at this period, the *Morbus Gallicus*, as originating from sudden surprize or fright. Ibid. Let. 6. p. 64. We know, indeed, that soon after the introduction of this disease into Europe, it contaminated a nunnery in Paris ; and there still remains an order in the parliamentary records of that city, to remove the nuns into the country, to obviate the effects of infection, which is said to have been conveyed by the air over the walls of the convent.

^p Lib. 19. sect. 26. p. 168. Goguet, l'origine des Loix, v. 1. p. 204.

It is to this period Pliny^a refers, where he says, that the kings of Egypt commanded criminals to be dissected; the period to which the anatomical discoveries of the Egyptians must be referred.

^a Locis citat.

SECTION

S E C T I O N V.

O F B O T A N Y A N D P H A R M A C Y.

AS man was constituted with the appetite of hunger, he could only satiate it with such productions of the earth, as were familiar to him in the first ages of creation. Before he was provided with the means of subduing the beasts of the field, he would be accustomed to trees *pleasant to the sight, and good for food*, and to *the herb bearing fruit*, agreeable to the relation of the sacred historian^r.

The ancient Egyptians, the descendants of the Mizraim^s, constituted one of the most early nations of the east: they are represented as having lived chiefly upon the Lotus of the Nile, of which they made a sort of bread, and on the lower stems of the Papyrus; and sheltering themselves under sheds of mean workmanship, which they thatched with the

^r Genes. ch. i. ver. 29. ch. ii. ver. 9. Kämpfer. Amœnit. Pasc. 4.

^s Mizraim, the brother of Canaan, the father of the genuine or original Egyptians. See Bryant's Analysis, v. 1. p. 7. 373. V. 2. p. 236. V. 3. p. 201. 209. 233. 293. 296. 317. 355. particularly p. 233.

flags of the river^t. Many centuries probably elapsed, while they proceeded in this simple way of life, before any considerable improvements were made ; it has probably been the state of all rude nations, and it is the condition of many at this moment^u.

This acquaintance with the vegetable system, would gradually introduce a knowledge of their virtues, as the frailty of the human constitution would at length require the aid of remedies, to alleviate or remove those injuries to which it is liable ; and we find that, in the most remote antiquity, the art of curing diseases, and of healing wounds, consisted in the application of herbs, and the use of their juices^w.

Discoveries

^t Diod. Sicul. lib. 1. p. 41. It was probably the irruption of the Titans, Cuthites, or Royal Shepherds from Chaldea and Babylonia, that first introduced the spirit of improvement into the land of the Mizraim, which they took possession of, and called Egypt. (Eupolemus apud Eusebium Præf. Evang. lib. 9. p. 419. Scholia in Æsch. Promuth. p. 52. Josephus contra Apion. lib. 1. p. 444.) The reign of the shepherds, which continued five hundred and eleven years, constitutes the Chusean reign ; but the Greeks, according to Bryant, mistaking the etymology of the word for Chusan, or the land of Chus, substituted Chruson, or Golden, which gave rise to the fable of the golden age, and consequently of the silver, brazen, and other fabulous ages. Ancient Mythology, v. 1. p. 8. 357. 361. v. 2. p. 73. 118. 175. 184. 198. v. 3. p. 29. 36. 146. 195. 213. 217.

^u Plutarch Isis et Osiris, p. 365. Diod. lib. 4. c. 4.

^w Plin. lib. 25. init. lib. 26. sect. 6. Hygin. Fab. 274. p. 328. Plutarch, tom. 2. p. 648. Scholiast. Hom. ad Iliad. lib. 11. v. 845. Servius ad Æneid. lib. 12. v. 396. Isidor. Origin. lib. 4. c. 9. init. By the use of vegetables in most nations, they appear to have been the first remedies adopted by the people ; and not only in the early ages of the world, but in rude countries, whose description is much more recent, we find this practice very general. Garcillasso, Hist. des Yncas, t. 2. l. 2. c. 24.
P. Martyr

Discoveries of such importance to mankind, as the virtues of the vegetables which surrounded them, must have been highly acceptable to a rude people. There is not any thing that excites more gratitude or pleasure in the breast of a convalescent, than recovery from pain and distress : he is ready to deify the human agent. The mind, untutored in philosophical truths, adheres naturally to the marvellous : and thus, in the first ages, every uncommon event would be considered as the production of some supernatural agent ; and while cause and effect were connected by this mode of induction, such discoveries as I have mentioned would be ascribed to gods, goddesses, and heroes ^x, from whom, or the priests of their temples, many productions of the earth received their names ^y ;

P. Martyr de Novo Orbe, Dec. 7. ch. 3. p. 255. Charlev. Journ. Hist. d'un Voy. de l'Amer. t. 3. p. 317. 364. Forster's Transl. v. 2. p. 174. et seq. Recherch. Phil. sur les Amer. t. 1. p. 54. De Solis, and other Spanish writers. Bosman's Guinea, l. 13. p. 225. *et passim*, l. 21. p. 447. Kolben's Present State of the Cape of Good Hope, v. 1. ch. 7. p. 88. Cortez, Hist. of New Spain, translated by T. Nicholas, p. 199.

^x Plin. lib. 25. p. 360. Plutarch Isis et Osiris, p. 365.

^y Millefolium, or the Achillea, was so called from Achilles. (Plin. lib. 25. n. by this Telephus was cured). The hyacinth was sacred to Ajax. (Plin. lib. 15. n. 38). Germander to Teucer. (Plin. lib. 25. n. 20). The squill to Epimenes. (Theophrast. Canf. ii. c. 22. The broom to Alexander. (Stephan. p. 96). Olives to Aristæus. (Diod. lib. 4. p. 93). And corn to Ceres. Gentian was also named after Gentius : with many other similar instances.

and hence, probably, Mercury Trismegistus ^z acquired so much repute among the Egyptians, who have been considered as the first cultivators of botany ^a.

These people, as well as other eastern nations, consecrated to some god whatever they deemed salutary, or of great value: thus, the ivy was sacred to Osiris and Bacchus ^b; the herb Mercury, to Hermes ^c; the

^z Conf. Galen. de Simplic. Medicam. Facult. lib. 6. Proem. t. 13. p. 146. Bryant's Analysis, v. 3. p. 257.

^a Plin. lib. 25. sect. 5. p. 360. Hom. Odyss. lib. 4. v. 228.

^b See Hawkesworth's and other late Travels. The Greeks, in like manner, in these first ages, fed on roots and wild fruits. Pausan. lib. 8. c. 1. A species of acorn seems to have been their chief support. Virg. Georg. lib. 1. v. 147. Lucret. tom. 5. v. 1415. Plin. lib. 7. sect. 57. p. 412. Pausan. locis citatis. This kind of acorns are common in the south of Europe. Strabo, lib. 3. p. 233. Plin. lib. 16. sect. 6. And probably under this term the ancients comprehended chesnuts, walnuts, &c. Porphy. de Abstin. lib. 2. p. 128. Pausan. lib. 8. c. 2. Isidor. Origin. lib. 17. c. 7. p. 148. Conf. Herodot. lib. 3. n. 100. Agator. Chid. apud Phot. c. 22. Diod. lib. 3. p. 191. Strabo, lib. 11. p. 781. 798. lib. 16. p. 1116. lib. 17. c. 1177. Lucret. lib. 5. v. 16. lib. 6. v. 932.

There was a custom at Athens to recall the memory of these ages of ignorance and rusticity. For this purpose they presented to the married pair, on the day of their nuptials, a basket of acorns mixed with bread. (Potter's Grecian Antiquit.) Monboddo's Origin of Languages, sect. 1.

^c Plin. lib. 25. c. 18.

pine, to Neptune^d; black hellebore, to Melampus^e; centaury, to Chiron^f, who was said to have been cured by this plant, of the wound accidentally made by the spear of Hercules: the laurel was named after Alorus^g; and the berry was termed Bacca, from Bacchus; myrrha was from Ham-ourah; casia from Chus; and camphor, from Cam-phour; opium, from Ophion; the Thebaic extract from the Theba^h; cinnamon was denominated from Chan-Amon; Ar-

^d Plutarch. Quæst. Conviv. 1. v.

^e Plin. l. 25. c. 21.

^f Plin. l. 25. n. 50.

^g Al-orus "is the god of fire," (Diod. Sic. l. 1. p. 8. Herod. l. 2. c. 3.) as El-Allath is "god the sun." Alorus was Nimrod, called by the Greeks Nebrod, and also Orion. He was the first rebel on record, as well as the first king. He was the founder of Babel or Babylon, where this imperious prince fixed his habitation. The title of Belus was confirmed upon him. See Bryant's Analysis, v. 1. p. 9. 413. 493. V. 3. p. 17. 23. 47. 111. 118. 148. 239. 375. 417. Observations, p. 199. 248. with his numerous authorities. Henley's Dissertation on St. Peter and St. Jude. Banier's Mythology, 8vo. v. 4. p. 385.

^h Theba, תְּבַה an ark, of which the poppy, and the rhoia (pomegranate) were emblems. (Gruter. Inscript. p. 33. n. 10. Deo invicto Mithræ. And the poppy accordingly is often found upon coins and marbles, where Juno; Venus, Mithras, and other deities are commemorated. The poppy was by the ancient Dorians stiled Μακων, Macon. Now Ma and Mas, among the Amonians, signified water, and with some latitude the sea; Macon denoted the deity worshipped under the name of Poseidon; and signified *Marinus Deus, sive Rex Aquarum*. The fruit was denominated from the god to whom it was sacred. See Bryant's Analysis, v. 2. p. 381. 388.

temisia was sacred to Dianaⁱ; the olive, to Pallas; and corn, to Ceres^k.

The Egyptians, who disfigured the sublime truth of the immortality of the soul by the doctrine of transmigration^l, imagined at the same time that it remained attached to the human body, as long as that was preserved from corruption^m; and this gave rise to

ⁱ Diana, compounded of De Iana, the goddess Iāna, the same as Dione, Idione, Adione, Dionæa, Venus, De Ione the dove. Servius in Georgic. l. 1. v. 5. "Lunam; eandem Dianam, eandem Cererem, eandem Junonem, eandem Proserpinam dicunt. Vide Bryant's Analysis, v. 1. p. 310. 316. 457. v. 2. p. 340. 345. 363. 431. Banier's Mythology, v. 1. p. 346. v. 2. p. 421. v. 3. p. 282. Bocharti Opera, t. 1. c. 113. l. 49. c. 663. l. 62. t. 3. p. 63. l. 28. p. 581. l. 29. Potter's Grec. Antiq. v. 1. p. 77. 373, &c.

^k Ceres was originally the deity of fire; hence at Cnidus she was called *Κυρα*, Cura, (Coelius Rhodig. l. 17. c. 27.) a title of the sun. Her Roman name Ceres, expressed by Hesychius Gerys, was by the Dorians more properly rendered Garys. Bryant says, the notion of her being esteemed the goddess of corn, arose in part from the Grecians not understanding their own theology. The towers of Ceres were Πύρταιν, or Πυρταυσία, so called from the fires, which were there perpetually preserved. The Grecians interpreted this *πυρ ταπειον*; and rendered what was a temple of Orus, a granary of corn. In consequence of this, though they did not abolish the ancient usage of the place, they made it a repository of grain, from whence they gave largesses to the people upon any act of merit. Analysis, v. 1. p. 177. 308. 310. 316. 444. 483. v. 2. p. 27. 35. 182. Banier's Mythology, v. 1. 77. 105. 115. v. 3. 47. 61. 281. Bocharti Oper. t. 1. c. 395. l. 6. Potter's Grec. Antiq. v. 1. 388. 403, &c.

^l They believed, that when the soul was separated from the body, it entered into some animal; from whence, after a long circuit of 3000 years, it returned again into a human body. Herod. l. 2. p. 123.

^m Servius ad Æneid. l. 3. v. 67.

the art of embalmingⁿ, in order to prevent the transmigration of the souls of their friends into the bodies
of

ⁿ Vid. Herod. l. 2. Greenfield on Embalming. In Dr. Pococke's Description of the East, there is a particular history of embalming among the Egyptians, v. 1. p. 226. 230. 231. 233. This art has been practised in America. In the fourth and last voyage of Columbus, he observed upon the coast, near the isthmus of Darien, several bodies which the Indians had embalmed, some of which they carried about with them. Collection of Voyages and Travels, v. 1. p. 109. See also a Relation of a Voyage made in the Years 1695, 1696, and 1697, on the Coast of Africa under M. de Gennes, by the Sieur Froger, p. 15. and note 95.

Brydone, in his Travels through Sicily and Malta, v. 2. p. 71 and 72, describes a convent of Capuchins near Palermo, in which there is a vast subterraneous apartment, divided into large commodious galleries, the walls on each side of which are hollowed into a variety of niches, as if intended for a great collection of statues; these niches, instead of statues, are all filled with dead bodies, set upright upon their legs, and fixed by the back to the inside of the nich: their number is about three hundred; they are all dressed in the clothes they usually wore, and form a most respectable and venerable assembly. The skin and muscles, by a certain preparation, become as dry and as hard as a piece of stock-fish; and although many of them have been here upwards of two hundred and fifty years, yet none are reduced to skeletons; the muscles, indeed, in some appear to be a good deal more shrunk than in others; probably because these persons had been more extenuated at the time of their death. Here the people of Palermo pay daily visits to their deceased friends, and recall with pleasure and regret the scenes of their past life: here they familiarize themselves with their future state, and chuse the company they would wish to keep in the other world. It is a common thing to make choice of their nich, and to try if their body fits it, that no alterations may be necessary after they are dead; and sometimes, by way of a voluntary penance, they accustom themselves to stand for hours in these niches.

Teneriffe (one of the Canaries) has been long famous for its mummies. They are mentioned by Dr. Birch, in his History of the Royal Society; and by Glass, in his History of the Canary Islands. About ten years ago, one of these mummies was procured by Lord Sandwich, and by him presented to the University of Cambridge, of which he is Chancellor. About five years since I procured two of these mummies enclosed

of different animals°. This opinion, though founded upon superstition, would ultimately tend to increase the

in the skins of goats neatly sewed together; one of these curious subjects I presented to the British Museum, and the other is now in my possession. The custom of embalming in this island has not been practised for near two centuries, and yet these mummies continue in the highest preservation, and the muscles are not much shrunk. See Glass's History of the Canary Islands. Birch's Hist. of the Royal Society. Wafer, in his Voyages, &c. p. 208, 209. mentions, that his company, "in searching for water near Potosi in South America, marched four miles up a sandy bay; all which we found covered with the bodies of men, women, and children; which lay so thick, that a man might, if he would, have walked half a mile, and never trod a step off a dead human body. These bodies, to appearance, seemed as if they had not been above a week dead; but when they were handled, they proved as dry and light as a sponge or piece of cork. The Indians, rather than lie at the Spaniard's mercy, dug holes in the sand, and buried themselves alive. The men, as they now lie, have with them their broken bows; and the women their spinning-wheels, and distaffs with cotton yarn upon them. Of these dead bodies, I brought on board a boy about nine or ten years of age, with an intent to bring him home for England, but was frustrated of my purpose by the sailors, who have a foolish conceit, that the compass would not traverse aright, so long as any dead body was on board, and therefore threw him overboard to my great vexation." In my voyage to the West Indies, I experienced a similar incident. Having a skeleton on board in my possession, and the storm continuing several days after we passed Madeira, the supposed cause of the storm was brought upon deck, in order to be consigned to the ocean; I had influence, however, to procrastinate its fate by the aid of rum, for several successive days, till the storm ceased, which at once relieved me of my anxiety, and of my spirituous tribute.

° So great was their superstition from this motive, that they sacrificed their freedom and their country to their attachment to the sacred animals. Cambyfes took Pelusium, the very key of Egypt, by putting cats, dogs, and sheep, in the front of the army. The Egyptians immediately laid down their arms, chusing rather to give up their country to their utter enemy, than risque the hurting their cats, or any of the sacred animals. Archæologia, v. 1. p. 223. Conf. Manetho apud Josephum contra Apion, l. 1. p. 1053. d. and Bryant's Ancient Mythology, v. 1. p. 335. Comp. Ulloa's Voyage to South America, v. 1. b. 6. ch. 6. p. 409. If a person

the knowledge of botany, and particularly of those substances which experience shewed to be most anti-septic ^p: hence myrrh, resinous bodies, and aromatics, were some of those vegetable productions, whose virtues were discovered in very early ages of the world, and continue to the present period in high estimation. They appear to have constituted a considerable branch of commerce by that animated description of

person killed any of the sacred animals designedly, he was punished with death; if involuntarily, his punishment was referred to the discretion of the priests. But he that even involuntarily killed a cat, an hawk, or an ibis, was to die without mercy; an instance of which Diodorus relates, as an eye-witness to. A Roman happening accidentally to kill a cat, the exasperated mob gathered about the house where he was, and neither the intreaties of some principal men sent by the king, nor the fear of the Romans, with whom they were then negotiating a peace, could save the life of the unfortunate criminal. Such was the reverence which the Egyptians had for those animals, that in an extreme famine they chose to eat one another, rather than feed upon their imagined deities. When any of those animals died, particularly the bull Apis, which was the most famous, a great lamentation ensued. Upon the death of Apis, Egypt went into a general mourning, and the obsequies were solemnized with such a pomp as is hardly credible. In the reign of Ptolemy Lagos, the Apis dying of old age, his keeper bestowed 13,000 talents over and above all his substance in burying him. Some keepers, we are told, squandered the immense sum of 100,000 talents, in the maintenance of those creatures. Gen. Hist. v. 1. p. 71. Herod. I. 2. Euterpe gives a circumstantial account of the high veneration which the Egyptians entertained for their sacred animals. See also Wood's Essay on the original Genius and Writings of Homer. Abulfedæ Descriptio Ægypti Arabicè et Latinè. Ex Cod. Paris. edit. Latinè vertit, notas adjecit Joannes David Michaelis, Gotting. 1776. Laughton's History of Ancient Egypt. Bryant's Mythol. v. 1. p. 48. 420. 430. 449. 465. 475. 478. v. 2. p. 161. 226. 313. 324. 359. 527. v. 3. p. 50. 588.

^p See sect. 6. under chemistry, of the state of chemistry in the preservation of mummies.

Tyre^q, the glory of ancient Phœnicia^r, which was given by a writer in sacred history, who flourished in Judea when Solon did at Athens. By this we also learn^s, that silver, iron, tin and lead, were brought from Tarshish, or Carteia^t; brass from Juwan, Tubal, and Meshech; coral from Syria; honey, oil, and balm, from Judah; calamus and cassia from Dan and Juwan; and spices from Sheba and Baamah. When we consider, that even in ages of philosophical enquiry, many discoveries arise from fortuitous incidents^u, we cannot

^q In Hebrew, called Zor, or Sor; and, according to another dialect Sur, Sar, whence the adjoining country was called Syria; and by the Armenians or Syrians, Tor, Tur, Tyr, similar to the שׁוּר and הוּר of the Chaldeans; both these terms signify a bull; and it was the insigne, by which the deity was there represented. See Bryant's Mythology, and Macbean's Dictionary. Porphyry, the famous antagonist of Christianity, was of Tyre; and so likewise was Maximus the Platonic philosopher, and Ulpian the celebrated civilian.

^r Phœnicia. See the origin of this name, and the people inhabiting it. Bryant's Analysis, v. 1. p. 319. 507. v. 2. p. 168. 172. 184. v. 3. 183. 231. 232. 250. 327. 356. 443. Bryant's Observ. p. 222.

^s See this beautiful and animated description, Ezek. ch. xxvii. I have only selected such passages as are connected with some part of medicine.

^t Tarshish or Carteia, a town near Gibraltar. Between eight and nine hundred years before the Christian æra, the Phœnicians planted a colony here, and named the town Melcarthos. The Carthaginians displaced the Phœnicians about 280 years before the birth of Christ; and they, in their turn, were driven out by the Romans after their possession of 80 years. This is supposed to be the city to which the fleet of king Solomon resorted. (1 Kings, ch. xx. v. 22.) Carter's Journey from Gibraltar to Malaga. Monthly Rev. v. 57. p. 381.

^u Diligentes homines hæc notâsse, quæ plerumque melius responderent; deinde ægrotantibus ea præcipere, cæpisse; sic medicinam ortam: subinde

not but imagine, that similar contingencies would produce like effects, and gradually tend to increase the knowledge of mankind respecting this department of medicine; by this means the febrifuge effects of Kinkina were first discovered^w, and many other remedies^x, which succeeding experience has confirmed.

The instinct of animals, though limited to their absolute necessities, and incapable of much improve-

inde aliorum salute, aliorum interitu, perniciofa discernentem à salutari-
bus. Cels. Præf. l. 1. p. 9.

^w It is said, that by accident, a person labouring under a fever drank of the water of a lake, surrounded by trees bearing the Peruvian bark, into which some of them had fallen, and impregnated the water, and by this natural infusion he was perfectly cured. This discovery of the virtue of Peruvian bark was made by the Indians in 1500, and the vegetable was brought to France by Cardinal Lugo in 1650, and acquired the name of Jesuits bark, from the persons who introduced it into Europe.

This history indeed does not correspond with the account related by Ulloa, who represents the Indians as ignorant of its virtues: He says, "that M. de Jussieu instructed them how to make an extract of it, and prevailed on the inhabitants of Loja, in the jurisdiction of Quito, to use it, where its virtues had till that time been neglected, though intermitting fevers are there as common as in any other parts. Before he undeceived them, the natives imagined that it was exported to Europe, only as an ingredient in dyeing. This ingenious physician convinced them of their mistake by many happy effects; so that now it is generally used in all kinds of fevers." Ulloa's Voyage to South America, v. 1. p. 323. See Jesuits Travels, by Lockman, v. 2. p. 116.

^x Celsus, l. 5. c. 27. Aretæus, l. 11. Athenæus, l. 3. Galen Purg. Facult. c. 4. Not only medicine, but most arts and sciences have derived great improvements from accident.

ment, is probably more accurate ^y than the reasoning of men, and may have given rise to some discoveries in

^y The history of animals abounds with examples of the accuracy of animal instinct, independent of the half reasoning elephant; and there are many instances of improved sagacity in brutes. Respecting dogs, (a subject I shall resume under the History of Æsculapius) Ulloa mentions a curious circumstance to this purpose: at the island of Juan Fernandes, he relates, that the dogs never bark. "We caught some of them, says this author, and brought them on board; but they never made any noise, till joined with some tame dogs, and then indeed they began to imitate them, but in a strange manner, as if learning a thing not natural to them." V. 2. b. 8. c. 4. p. 225. See also Ld. Monboddo's Origin of Language.

The dogs employed by the Spaniards in the reduction of America, seem to have been endued with great sagacity. Those who accompanied Vasco Nunnez worried two thousand Americans. In the battle of Caxamalca, the first line in the army of Pizarro was composed entirely of dogs, who began the attack upon the Peruvians with such impetuosity and valour, that the court of Spain, charmed by their exploits, determined to give them regularly pay like the other troops. We find in ancient records, that a bull-dog, by name Berecillo, was much distinguished among his contemporaries, and has been since celebrated by the Spanish historians. Monthly Review upon Robertson's America, v. 57. p. 138. Confer. Labat Voy. aux Isles, t. 4. ch. 7. p. 165. In Columbus's second voyage, at the famous battle wherein Cacinabo was taken with his wives, and 100,000 men defeated, great havock was made among them by twenty wolf dogs. Sir Hans Sloane intimates, that they had half the pay of a man. Hist. of Jamaica, v. 1. Introd. lxviii. Priestley's Disquisitions relating to Matter and Spirit. Kenrick's London Review, v. 7. p. 12.

Dogs were formerly used in England for similar purposes. There is a passage in an old record, in which it is said, "that the rector of Newbiggin was bound to perform altar service at the church of Kirkby Thore two days in the year, on which days the rector of Kirkby Thore was to find a dinner for the said rector of Newbiggin and *his dog*." See Nicholson's and Burn's History of Westmoreland and Cumberland. See also Tournefort's Voyage into the Levant, v. 1. l. 2. p. 102. Homer's Account of the faithful Argus at the return of his master Ulysses. Od. xvii. Plutarch.

in this branch of medicine ; at least authors have furnished numerous authorities for such an opinion ².

The

Plutarch. *Isid. et Osir. λ. et ιδ.* Ancient Universal Hist. v. 20. M. R. de L. *Observations Physiques, &c.* vol. 2. p. 12. Paris 1771.

The author of the *Recherch. Philos. sur les Amer.* observes, that the dog Berecillo had two reals a month, v. 1. p. 78. Brutus, a famous greyhound that accompanied Ferdinand Sotto in the conquest of Florida, after making dreadful havock amongst the Indians, was at length killed by an Indian arrow, and the Spaniards, says Garcilasso, went into mourning for Brutus, as if he had been a Christian.

The celebrated mastiff, named Barémel, was much dreaded all over the island of Hispaniola, and though he was guarded by a shield against the arrows of the Indians, they at length killed him by piercing his eyes with darts. Antonio de Herrera, in his first Decade, relates, that this fierce creature, whose instinct was singular, guarded a narrow pass in the island ; and that one day an Indian woman, being desirous of passing by him, addressed him in these words : “ Seignior Dog, do not hurt me ; I carry this letter to the Christians :” he adds, “ that the dog immediately smelt at her, p—d upon her, and suffered her to pass without injury.” Boffu’s *Travels*, v. 1. p. 11. n. Conf. p. 16. *Recherch. Philos. sur les Amer.* v. 1. p. 78. n. Conf. Cavazzl, *Relation de l’Ethiopie Occidentale*. See note 297. Martyr de *Novo Orbe*, Dec. 1. l. 3. p. 23. Dec. 3. ch. 1. p. 96. Ch. 2. p. 104. Pernetty *Hist. d’un Voy. aux Isles Malouines*, t. 1. ch. 5. p. 155. n. *Voyage to the Island of Mauritius, &c.* p. 102.

² Thus it has been related, that the vulnerary virtues of Dittany were first learned from the stag. Plin. l. 25. n. 53. Theophrast. l. 9. c. 16. That the same animal purges itself by means of Sefeli. Aelian. l. 13. c. 50. That men learned, that the ligneous part of Cassia was laxative from the ape. Fallop. *Purg. Simplic.* 35. That the mungouse, a species of ferret, eats a certain root, after which he attacks the serpent with impunity. Kæmpfer. *Exot. Fasc.* 3. c. 10. *Auct. Herb. Amb.* c. 37. 53. G. ab Orta, l. 1. c. 44. et Loch. in *Diff.* on which account it is used in malignant diseases. That the deer wounds its eyes, when they are inflamed, with the point of a rush ; and the goat with the bramble. Geopon. l. 18. c. 18. Plin. l. 8. c. 50. Aelian. l. 7. c. 14. That the tortoise defends itself against the bite of a serpent by organum. Aelian. *Anim.* l. 6. c. 11. That

The study of botany seems to have been cultivated with great assiduity in these early ages ; and horti-

That the bear, by means of the arum, opens its intestines, almost collapsed during winter. Idem, l. 6. c. 3. That the same animal licks up ants, as an antidote, when poisoned by eating the mandrake. Plin. l. 8. c. 27. That jays, partridges, and blackbirds, purge themselves with the leaves of laurel during their moulting. Idem. That pigeons, cocks, and doves, use pellitory, and ducks and geese stone-crop, for the same purpose. Id. That hawks cure their eyes by the juice of the hawk weed. Aelian. Anim. l. 2. c. 43. That the serpent casts the skin off its eyes by the application of fennel. Id. l. 9. c. 16. That partridges, storks, and wood pigeons, heal their wounds by origanum. Id. l. 5. c. 46. That from dogs eating certain herbs, in order to purge themselves, the Egyptians learned the art of purging. Id. That from dogs also, the virtue of pellitory in dissolving calculi was discovered. Boccone. That Melampus discovered the purgative quality of hellebore, by observing its effects upon goats. That deer, when injured by a species of venomous spider, eat crabs to obviate its effects. Plin. l. 8. c. 27. Aelian. Var. Lect. l. 13. c. 50. Confer. Haller. Biblioth. t. 1. p. 3.

The author of *Universal Beauty*, a philosophical poem, has given so pleasing an instance of this animal instinct, in his description of the Cretan doe, that I shall make no apology for inserting it here :

First, let the botanist his art forego,
And o'er the mountain trace the Cretan doe ;
Behold the critic stand with curious mien,
And cull the virtues of the various green,
Secrete her foliage from the noxious weed,
And conscious of her skill securely feed.
Where did this sylvan leech her lore acquire,
From Æsculapius, or his radiant fire ?
When to her panting flank the weapon flies,
And deep within the feather'd mischief lies,
She seeks the well-known med'cine of the plain,
Nor yet despairs where human art were vain ;
Mild through her frame the sov'reign balsams glide,
And the keen shaft falls guiltless from her side.

Collection of Henry Brooke's Poetical Pieces lately published, v. 1.
p. 115.

culture

culture had been introduced in many places with a degree of elegant variety. The Grecian bard has given a picturesque description of the garden of the hospitable Alcinous, wherein

Beds of all herbs for ever green,
In beauteous order terminate the scene ^a.

^a Homer. Odyss. l. 7. This is the second description of a garden, which history exhibits; the garden of Eden described by Moses being the primary one. The eastern nations, who first attained a state of refinement, and whose climate was favourable to horticulture, paid great attention to their gardens, and continue the same to this day, as the ancient accounts of Babylon, and the modern relation of Sir William Chambers equally testify. The gardens of the Emperor Montezuma of Mexico were spacious, and furnished with many medicinal plants. There was nothing to be seen, says the author of the conquest of Mexico, l. 3. c. 14. but flowers of delightful variety and fragrancy, with medicinal herbs, set in squares, and summer-houses, where he used to sup. He took a particular care to transplant into his gardens all the choice simples that benign climate produced, where the only study of the physicians was to attain to the knowledge of their names and properties. They had herbs for all kinds of pains and infirmities; and in the juices and application of these herbs consisted all their remedies, and with these they effected surprizing cures, having by long experience found out their virtues, and without distinguishing the cause of the distemper, applying them to the patient's great benefit and recovery. The Emperor freely distributed to all, who had occasion for them, such of his simples as were prescribed by the physicians, or desired by the sick; and was wont to inquire if the patient had received any benefit therefrom, either gratifying a sort of vanity he had in the successful operation of his medicines, or believing that he fulfilled the obligation of a sovereign, in taking such care of the health of his vassals. When Cortez was taken ill at Tlascala, the Indian physicians had the skill soon to cure him. Comp. Gage's New Survey, p. 100. Herrera, De Solis, &c. The eastern princes in ancient times did not deem the knowledge of medicine unworthy cultivation. The kings of Egypt, I have elsewhere observed, studied and promoted this knowledge; and the wise Solomon cultivated botany in a peculiar manner, being acquainted with botany from the cedar tree of Lebanon, even unto the hyssop that springeth out of the wall, 1 Kings, ch. iv. v. 33.

A a

As

As vegetables were the first remedies adopted in these early ages, experience would at length confirm the effects of such of them to which they had attributed peculiar powers and virtues. The great solicitude of Rachel, to obtain from her sister some of the mandrakes ^b, which Reuben had brought from the fields, could only proceed from a persuasion of the efficacy of this plant in removing barrenness ^c; and the celebrated native of Chios ^d, who immortalized his heroes on the banks of the Scamander, frequently introduces the sudden effects of vegetable juices on wounds and bruises, which at this period would be thought dangerous ^e.

The history related by him of the effects of the

^b Mandrakes. (*Atropa Mandragora* Linnæi).

^c Genes. ch. xxx. v. 14, 15. Goguet l'Origine des Loix, &c. v. 1. l. 3. Art. 3.

^d Wood, in his Essay on the original Genius and Writings of Homer, considers this great poet as a native of Chios, rather than of Smyrna. See the next chapter.

^e Ancient writers have recorded numerous examples of remarkable cures by simple means. (See the Cases collected by Le Clerc). By simple means the rude Tlascalans cured the celebrated Cortez; and yet so ignorant were the professors of surgery in Europe in the beginning of the 15th century, that Henry the 5th, the conqueror of France, could not be cured of a fistula, of which he expired at the castle of Vincennes, in the 34th year of his age, anno 1422. See the method of treating Diseases in America, Mœurs des Sauvages, t. 2. p. 371. P. Martyr, Dec. 7. ch. 3. p. 255. Charlev. Journ. Hist. d'un Voy. de l'Ameriq. t. 3. p. 317. 364. Forster's Translation, v. 2. p. 174 et seq. Recherch. Philos. v. 1. p. 52. Bosman's Guinea, *passim*.

herb

herb moly^f, which Mercury presents to Ulysses, in order to enable him to overcome Circe the enchantress, and that of nepenthe^g prepared by Helen, gives reason for such a conjecture.

The learned mythologist^h, whose authorities I have frequently appealed to, mentions the natives of Colchis and Pontus as much skilled in simples. Their country abounded with medicinal herbs, of which they made use both to good and bad purposes. In the fable of Medea, we may read the character of the people; for that princess is represented as very knowing in all the productions of nature, and as gifted with supernatural powers. The region of Iberia, in the vicinity of Colchis, was also noted for its salu-

^f Odyss. l. 10. The qualities of moly are introduced by the poet, as antidotes to enchantment.

Before thy eyes
The bowl shall sparkle, and the banquet rise;
Take this, nor from the faithless feast abstain,
For temper'd drugs and poison shall be vain.

POPE.

^g Odyss. l. 4. Here the bard describes the effects of nepenthe:

With genial joy to warm the soul,
Bright Helen mix'd a mirth-inspiring bowl;
Temper'd with drugs of sov'reign use, t'assuage
The boiling bosom of tumultuous rage;
To clear the cloudy front of wrinkled care,
And dry the tearful sluices of despair.

POPE.

^h New System of Ancient Mythology, v. 3. p. 513. et seq. with which I shall conclude this section. Conf. Antephan. apud Athenæum, l. 6. p. 226.

tary

tary and noxious plants ; of which Horace takes notice,

Herbasque quas et Colchis, atque Iberia
Mittit venenorum ferax ⁱ.

Strabo says, that the Soannes were skilled in poisons, and that their arrows were tinged with a deadly juice ^k.
The

ⁱ Hor. Epod. Od. 5. v. 21. The natives were of the Cuthite race, and Propertius takes notice of the efficacy of their herbs :

Non hic verba valet, non hic nocturna cutæis.

L. 2. Eleg. 1. v. 73.

Virgil also speaks to the same purpose :

Has herbas, atque hæc ponto mihi lecto venena,
Ipse dedit mæris, nascuntur plurima ponto.

Eclog. 8. v. 95.

^k L. 11. p. 763. The most lethiferous poison ever discovered, is particularly described by Dr. Bancroft, a member of the medical society, in his History of Guiana ; it is called Woorara. The poisoned arrows are made from splinters, of the hard, solid, outer substance of the cokarito tree, are usually about twelve inches in length, and are somewhat larger than a coarse knitting needle. One end of the arrow is formed into a sharp point, and envenomed with the poison of Woorara ; round the other end is wound a roll of cotton, adapted to the cavity of the reed through which the arrow is to be blown. The arrow, thus decked and armed for destruction, is inserted into a hollow strait reed, several feet in length, which, being directed towards the object, the arrow is, by a single blast of air from the lungs, protruded through the cavity of the reed, and flies with great swiftness, and unerring certainty, the distance of thirty or forty yards, conveying speedy and inevitable death to the animal from which it draws blood. Bancroft's Guiana, p. 283. et seq. A similar poison used by the Indians inhabiting the shores of the river of Amazons, is mentioned by the late M. de la Condamine, in his Relation Abregée d'un Voyage fait dans l'interieur de l'Amerique Meridionale, &c. wherein he observes

The natives of Theba, called Tibareni, were supposed

observes of these poisoned arrows: " Ils trempent la pointe de ces petites flèches, ainsi que celles de leurs arcs, dans un poison si actif, que quand il est recent, il tue en moins d'une minute l'animal à qui la flèche a tiré du sang. Comp. Philos. Transact. v. 44. p. 2. 408. article by Dr. Brocklesby, and vol. 47. p. 75. Experim. by M. Herissaut. *Ralacion Historica del Viage al America Meridional, &c.* par don Jorga Juan, et Don Antonia Ulloa, &c. translated into English by J. Adams 1772. vol. 1. p. 21. and b. 6. ch. 5. p. 396. The first voyagers to America afford many fatal examples of the virulence of the poisoned arrows used by the natives. Martyr, *de Novo Orbe*, Dec. 1. l. 2. p. 14. Dec. 2. ch. 1. p. 56. Dec. 4. ch. 10. p. 173. Dec. 8. ch. 7. p. 301. ch. 8. p. 304. Charlev. *Hist. of Paraguay*, v. 1. b. 3. p. 177. vol. 2. b. 8. p. 94. *Recherch. Phil. sur les Amer.* v. 1. p. 76. v. 2. p. 240 to 245. 255. 258. n. Pernetty *Hist. d'un Voy. aux Isles Malouines*, t. 1. ch. 5. p. 259.

Labat says, that the juice of the manchineel apple was employed by the Caribbs to poison their arrows. *Voy. aux Isles*, t. 1. ch. 20. p. 477. et seq. et tom. 2. chap. 2. p. 18. See also P. Martyr, who first mentioned the deleterious qualities of this vegetable. *Herrera's America par de la Coste*. *Ulloa's Voyage to America*, v. 1. l. 1. c. 6. p. 48 and 49. *Relation of a Voyage*, by M. de Gennes, an. 1695, 1696, and 1697, by the *Sieur Froger*, p. 153. *Sloane's Jamaica*, v. 2. p. 3. 4 and 5. *Fermin, Descript. de Surinam*, t. 1. ch. 5. p. 52, 53 and 54, gives a particular description of the manchineel, and of its application as a poison to the arrows of the Indians; and he coolly adds, " Pour en convaincre les Espagnols, un Roi Indien blessa très légèrement d'un coup de fleche empoisonnée, un enfant de douze ans fort sain, à l'extrémité d'un doigt du pied, et ordonna tout de suite aux chirurgiens qu'il avoit eu soin d'appeller, de lui amputer la jambe au dessus du genou: ce qui fût à peine fait, que les envoyés des Espagnols virent expirer l'enfant, non par les suites de l'opération, comme cela fût vérifié; mais par l'effet du poison qui s'étoit subitement répandu dans la masse du sang, et avoit rapidement gagné les parties nobles, avant qu'on eut pu y apporter aucun secours." See also the relations respecting the Coya or Coyba, a species of poisonous insect common in South America. *Ulloa's Voyage*, v. 1. b. 6. ch. 2. p. 343 and 344. *D'Acugna's and Acarete's Voyages and Discoveries*, p. 81. 88. 148. 168.

There are many curious tales communicated by writers, about the women upon the river of the Amazons. Orellana, who succeeded from his

posed to kill by their effluvia¹, and at a very great distance.

commander Pizarro, an. 1539, first sailed down this river; on the banks of which he had a skirmish with the natives, and killed many of them; amongst the slain there were several women, who had fought by the side of their husbands. Orellana, being of a romantic turn, improved this slight hint into a formal history of a great nation of Amazons settled upon this river, which he named Orellana after himself; from this story, it received the name which it still bears, and will always bear, of the river of the Amazons. Some writers, however, relate from this history all the circumstances connected with the fabled Semiramis of the East. See D'Acugna's and Acarete's Voyages, ch. 7. p. 18. Collection of Voyages, v. 3. ch. 6. p. 100. Bryant's Ancient Mythol. v. 2. p. 97. 100. 104. 106. 301. 304. 448. v. 3. p. 416. Apollodor. l. 1. Plutarch in Theb. Diod. Sicul. p. 163. Lafitau Mœurs des Sauvages, t. 1. p. 52. Gage's Survey, ch. 7. p. 43. Fermin, Descript. de Surin. v. 1. p. 55. Charlev. Hist. of Paraguay, v. 1. b. 2. p. 135. Rech. Philos. sur les Amer. vol. 2. p. 105. et seq. P. Martyr de Novo Orbe, Dec. 1. l. 2. p. 13. Dec. 7. ch. 8. p. 269. ch. 9. p. 276. with his own belief of this fable.

Tasso has exhibited a most tender picture in his Jerusalem delivered of a female warrior, who fell with her husband; of which Brooke has also a beautiful translation, b. 1. v. 257. Hoole, b. 20. v. 654.

So late as the 15th century, the English saw four French women at the head of armies, viz. the wife of the Count of Montfort, in Bretagne; Edward the Second's Queen in England; the Maid of Orleans, in France; and Margaret of Anjou, Queen to Henry the VIth of England: the last of them was opposed to the great Earl of Warwick, and fought by the side of her husband at the bloody battle of Nottingham in 1460. See also Charlev. Hist. of Parag. v. 1. l. 1. p. 39. Plin. in Vit. Agid. Tacit. Hist. l. 4. c. 67. Plut. Amat. p. 38. P. Martyr, p. 53. Bosfu's Louisiana. v. 1. p. 62. Rech. Philos. v. 1. p. 69. v. 2. p. 180. Bosman's Guinea, Let. 6. p. 79.

¹ Plutarch. Sympos. l. 5. c. 7. p. 680. These were the people, who were esteemed not capable of being drowned. There are many relations of persons, whose effluvia was fatal to men and animals, exposed thereto. See Purchas's Pilgrimage, in his History of Machamut, a Moorish king. Winstanley's Rarities, p. 163.

Mount

Mount Caucasus ^m, mount Pangæus in Thrace ⁿ, and the Circean promontory ^o in Italy, were famous for uncommon plants. The like is said of mount Pelion in Thessaly; of which there is extant a very curious description ^p. The herbs were supposed to have been first planted here by Chiron the Centaur ^q.

^m Auctor de Fluminibus, Phasis.

ⁿ Ibid. Hebrus.

^o Scholia in Apollon. Argonaut. l. 3. v. 311. Theophrastus de Plantis, l. 8. c. 15.

^p Apud Dicæarchum Georg. Gr. Minor. v. 2. p. 27.

^q Chiron, so celebrated for his knowledge, was an assumed character, formed from a tower or temple of that name, which stood at Nephele in Thessalia. It is a compound of Chir-on, the tower and temple of the sun; it was inhabited by priests called Centauri, and was used as a seminary where young people were instructed, many of whom lived to be present at the Trojan war, as Nestor, Machaon, Podalirius, Eneas, Achilles, &c. At this Chironian seminary, that machine of offence, since called the battering ram, was invented. It was first used at the Trojan war with a head resembling a horse, and by it a breach was made in the walls of the city, through which the Grecians entered; this gave rise to the fable of the wooden horse, which Homer has commemorated with martial dignity. The wooden horse has been since changed into a battering ram. The learned Bryant supposes Chiron to have been a temple only. Analysis, v. 1. p. 435. 438. v. 2. p. 438. 475. vol. 3. p. 515.

There were many edifices denominated Chironian, and sacred to the sun. Charon was of the same purport, and etymology; and was sacred to the same deity. The most remarkable temple of this name stood opposite to Memphis on the western side of the Nile, near the spot where most people of consequence were buried, and being near the catacombs, all the persons, who were brought to be there deposited, had an offering made on their account, upon being landed on this shore. Hence arose the notion of the fee of Charon, and of the ferryman of that name. This suggestion is also made by Le Brun, Voyage au Levant, ch. 36. p. 192.

Circe

Circe and Calypso are, like Medea, represented as deeply experienced in pharmacy and simples. Under these characters we have the history of Cuthite priestesses, who presided in particular temples near the sea coast ; and whose charms and incantations were thought to have a wonderful influence. The nymphs, who attended them, were a lower order in those sacred colleges ; and were instructed by their superiors in their arts and mysteries. Ovid gives a beautiful description of Calypso, and her attendants, who are engaged in these occupations.

Nereides, nymphæque simul, quæ vellera motis
 Nulla trahunt digitis, nec fila sequentia ducunt,
 Gramina disponunt, sparsosque sine ordine flores
 Secernunt calathis, variasque coloribus herbas.
 Ipsa, quod hæ faciunt, opus exigit : ipsa quid usus
 Quoque fit in folio ; quæ sit concordia mistis,
 Novit, et advertens pensas examinat herbas^r.

L. 14. v. 264.

Her maids, nor mind the loom, nor household care,
 Nor wage in needle-work a Scythian war ;
 But cull in canisters disastrous flow'rs,
 And plants from haunted heaths, and fairy bow'rs,
 With brazen sickles reap'd at planetary hours.
 Each dose the goddess weighs with watchful eye,
 So nice her art in impious pharmacy !

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Garth's Ovid. l. 14.

S E C T I O N VI.

O F C H E M I S T R Y.

THOUGH chemistry, as a department of medicine, has but very lately been cultivated in a scientific manner, it was not unknown, in another view, to the antediluvian world, in which some degree of perfection had been acquired so early as the eighth^s in descent from Adam, as we read of artificers in brass^t and iron^u at this period.

^s Genes. ch. iv. v. 22. Boerhaave supposes Tubal-Cain was the Hephaistos of the Egyptians and Greeks, the Horus of the Babylonians, and the Mulciber or Vulcan of the Romans. Elem. Chem. t. 1. p. 9.

^t Brass is made from copper, a metal which requires great art and industry to be produced from its ore or glebe. It is certain, however, that there are some rivers, which roll copper as well as silver in their streams. Vid. Lescarbot, Hist. de la N. France, p. 94. Hist. de las Guerras Civil da Granada, p. 2. Anc. Relat. des Indes, et de la Chine, p. 20. Hist. Gener. des Voyages, t. 6. p. 50. et 484. Hellot de la Fonte des Mines, p. 15. Macquer Dictionnaire de Chemie, article Fer. The ingenious author has obligingly informed me, that he is preparing a new and enlarged edition of this excellent work. There is a good translation of it in English, quarto, with valuable notes by M. Keir.

^u One of the most untractable of all metals, is iron: its ore is friable, easily crumbled into powder; but it requires much pains, and the most vehement action of the fire, to render it malleable. Art de convertir le Fer, par M. de Reaumur, p. 2, 3. 390. 395.

The early histories of many nations of antiquity prove, that metallurgic chemistry was one of the most remote inventions^w, though it is difficult to explain how mankind acquired this art^x. The ancients,

^w The History of the Golden Calf, recorded by Moses, has been produced by many as a proof of the metallurgic knowledge of mankind at that period, as the best modern chemists have admitted the difficulty of rendering gold potable. Boerhaavii, Elem. Chem. Dickenfoni Physicam Vet. et Nov. lib. 20. sect. 4. p. 318. Frederic the III^d. King of Denmark, curious to put the operation in practice, which Moses succeeded in, engaged some able chemists of his time to attempt it. The method which the Hebrew made use of, is thus related: "And he took the calf which they had made, and burnt it in the fire, and ground it to powder, and strawed it upon the water, and made the children of Israel to drink of it," Exod. ch. xxxii. v. 20. And Moses himself says, "I took the calf which ye had made, and burnt it with fire, and stamped it, and ground it very small, even until it was as small as dust; and I cast the dust thereof into the brook that descended out of the mount," Deut. chap. ix. v. 21. See Dutens's Inquiry into the Origin of the Discoveries attributed to the Moderns, chap. 5. p. 238. et seq. Voltaire, Un Chretien contre six Juifs. Lettres de quelques Juifs, Portuguais, Allemands, et Polonois 12. Paris 1776. Le Vieillard du Mont Caucafe aux Juifs Portuguais, Allemands, et Polonois 1778.

^x Goguet, in his excellent collection, intituled, L'Origine des Loix, &c. v. 1. l. 2. ch. 4. speaks particularly upon this subject. He supposes that volcanoes might possibly give men some idea of metallurgy. The streams of melted minerals, which from time to time are thrown up from these natural surfaces (Buffon Hist. Nat. t. 1. p. 502, 503. 507. 515. 533. Alonf. Barba, t. 2. p. 205), might probably put men upon trying to work metals by the help of fire. What renders this conjecture the more credible, is, that those persons who are represented as the inventors of metallurgy, both by the fables and histories of antiquity, lived in countries famous for volcanoes. Diod. l. 5. p. 335. Strabo, l. 6. p. 423. Pausan. l. 10. c. 11. Bochart, Chan. l. 1. c. 12. p. 431. Ancient writers, however, have attributed this discovery to the burning of forests, where the soil contained metals; the violence of the fire, according to them, having melted the metals, they flowed out and diffused themselves upon the surface of the ground. Lucret. l. 5. v. 12. et 41, &c. It was in this manner, according to the old traditions of Greece, that iron was discovered
on

cients, indeed, considered the invention of metallurgy to be so divine and marvellous, as to ascribe it to celestial beings^y. The Egyptians gave the honour of this discovery to their first sovereigns^z, from one of whom the term of chemistry is derived^a; and this branch

on mount Ida, Marm. Oxon. Ep. 11. Seneca, Ep. 90. p. 405. Clem. Alexand. Strom. l. 1. p. 401. It was to a similar accident they attribute the discovery of the silver mines in the Pyrenees, Arist. de Mirab. Auscult. p. 1157. Diod. l. 5. p. 358. Strabo, l. 3. p. 217, 218. Athen. l. 6. p. 233. It is related of certain sailors, that having landed on an unknown island, and kindled a fire at the foot of a mountain, they observed silver flowing from it. Anc. Relations des Indes, et de la Chine, p. 6. It is reported also, that the leader of a new colony, settled not long ago in Paraguay, observing a stone of uncommon hardness, and spotted with black, threw it into a very hot fire; and some time after, he saw a quantity of as good iron as any used in Europe running from the fire, Lettr. Edif. t. 11. p. 419, 420. It is likewise said, that the captain of a Spanish ship, being obliged to put in at a desert island, there repaired his ship's furnace. In making the hearth, he used several layers of earth: when he arrived at Acapulco, the whole crew were greatly surprized to find under the ash-pan of the furnace a solid mass of gold, which the violence of the fire had melted and separated from the earth, Mem. de Trevoux, Sept. 1713. p. 1549. Gemelli, t. 5. p. 296, et seq. I am inclined to think, concludes this agreeable writer, that some such accidents as these might give the first hint of the art of working metals. Perhaps some person by chance exposed earth or stones, which contained metals, to the heat of a violent fire, and took notice of a liquid matter running from it, which formed itself into different shapes, and became hard as it cooled. This would excite curiosity; the experiment would be repeated; and thus by degrees they would find out the art of melting metals.

^y Syncell. p. 14.

^z Agatharchid. apud Phot. c. 11. p. 1341. Diod. l. 5. p. 19. l. 3. p. 184. Palæph. in Chron. Paschal. p. 45. The Egyptians attributed these inventions to Vulcan, one of their first sovereigns. Cedren. p. 19. Suid. t. 2. p. 85. Conf. Plin. l. 7. sect. 57. p. 413.

^a Chemia, *χημία*, signifies the Egyptian art. The country itself was named Chemia,

branch of the art was arrived at great perfection^b in that nation, and in several countries of Asia^c, as early as the days of Abraham^d.

The Phœnicians, similar to the Egyptians, from whom they were a colony^e, attributed this useful art to their ancient heroes and deities^f.

Though refining, smelting, or fusion, and other branches of metallurgic chemistry, might require the

Chemia, and Chamia, or the land of Cham. Another sense of Chemia, and Al-Chemia, is a process by fire. Cham was worshipped under the great luminary the sun; hence the Auritæ, Oritæ, &c. Vid. Diod. l. 2. p. 63. Clem. Alexand. Stromata, l. 5. p. 657. Herodot. l. 3. c. 129. Bryant's Ancient Mythology, v. 3. p. 299. Boerhaave Elem. Chemiæ, v. 1. p. 8. Psalm cv. Suidas voce *χημεία*. Dutens's Inquiry into the Origin of the Discoveries attributed to the Moderns, &c. ch. 5. p. 235.

^b Diod. l. 1. p. 19.

^c Abraham drew his fable to sacrifice his son. The ancient patriarchs were employed in shearing of their sheep. In the book of Job we have a particular account of the finding and working of metals. Eliezer made Rebecca a present of ear-rings of gold and silver. Judah gave his signet and his ring to Tamar in pledge. Pharaoh gave Joseph his ring, and put a gold chain about his neck. Genes. ch. 13. v. 2. ch. 23. v. 15. ch. 24. v. 22. 53. ch. 38. v. 18. ch. 41. v. 42. Diod. l. 1. p. 19. l. 2. p. 122. Plin. l. 31. sect. 15. p. 614.

^d Abraham flourished about 1900 years before the Christian æra, which was not above two centuries after the Noachian flood; and at least 150 years before the kingdom of Argos was supposed to have been founded by Inachus.

^e See Note 133.

^f Sanchoniath. apud Euseb. p. 35.

experience

experience of many ages before a scientific knowledge of the art could be acquired, yet many natural events might very early introduce an acquaintance with some particular metals^g. In some countries, after violent rains, metals, as well as precious stones^h, are found in the

^g Vid. Alonſo Barba, l. 1. c. 23. Alex. ab Alex. Gen. Dier. l. 4. c. 9. Johnſton. Thaum. Claſſ. 4. c. 26. Journal des Sçav. May 1683. p. 90.

^h Diod. Sic. l. 4. Nat. Com. l. 6. Strabo, l. 11. Purchas's Pilgrimage, l. 4. c. 1. p. 291. Voyage de Frezier, p. 121. Voy. de Coreal, t. 2. p. 101. De la Font des Mines, par M. Hellot, p. 13 et 35. Along the valley de la Paz flows a pretty large river; and in the year 1730 an Indian happening to waſh his feet in it, diſcovered a lump of gold, of ſo large a ſize, that the Marquis de Caſtel-Fuerte gave twelve thouſand pieces of eight for it, and ſent it to Spain, as a preſent worthy the curioſity of his ſovereign. Don Ulloa's Voyage, v. 2. b. 7. ch. 14. p. 159. And Garcilaſſo le la Vega, in his Hiſt. des Yncas, mentions the diſcovery of gold with ſtone not leſs than a man's head in ſize, anno 1556. The perſon to whom it belonged was a man of fortune, but he thought it ſo immenſely valuable, that he failed with it from South America, purpoſely to preſent it to Philip II. of Spain; but the veſſel in which he embarked was ſhipwrecked, t. 2. l. 8. ch. 24. p. 354, 355. P. Martyr ſays, that Andreas Moralis, a pilot (who had travelled thoſe coaſts with De La Coſſa) had a precious diamond, which he bought of a naked young man in the region of Cumana, in the province of Paria. This ſtone was as long as two joints of a man's middle finger, and as big as the firſt joint of the thumb, being alſo painted on every ſide, conſiſting of eight ſquares perfectly formed by nature. The young man of Cumana wore this ſtone about his neck, and ſold it to Andreas Moralis for five of our counterfeit ſtones, made of glaſs of divers colours, wherewith the ignorant young man was greatly delighted. Dec. 3. ch. 4. p. 119. See Cortez conqueſt of New Spain, in which is an inventory of the firſt treaſure brought from South America, under the command of Grijalva, p. 12, 13, 14. And alſo the inventory made by Cortez at Mexico, while Montezuma was his priſoner, p. 94, 95, 96. and p. 233, 234. 363. The Diſcovery of Florida by Capt. Ribault, an. 1562. In the third voyage of Columbus, when he firſt landed at Paria, they obſerved one Indian with a ſingle grain of gold, as big as an apple. Collect. of Voy. v. 1. ch. 3. p. 78. And

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when

the rivulets; and torrents pouring from mountains deposit gold upon the sand and gravel in the valleysⁱ, or in the gutters made by such inundations^k, as, in the

when Columbus, who doubled for us the works of the creation, was first at Hispaniola, an Indian came to the shore with a piece of gold that weighed four ounces, and holding it in one hand, stretched out the other, and an hawk's bill being put into it, he let go the gold, and ran away, thinking he had cheated the Spaniards. *Ibid.* p. 26. In 1476, the largest diamond in Europe, taken by a Swiss soldier in the battle of Granion, was sold by him to his general for a crown. Luxury was then unknown in Switzerland, for about this time the deputies of Berné presented a remonstrance to Charles the Rash, Duke of Burgundy; setting forth, that their whole country was not worth the spurs worn by his knights. *Oeuvres de Voltaire*, t. 3. ch. 81.

This simplicity and rusticity of the Swiss is analagous to the state of Holland in 1608. It is said, that as the Marquis of Spinola and the President Richardot were going to the Hague, in the period above mentioned, to negotiate the first truce with the Hollanders, they saw on their way eight or ten persons come on shore out of a boat, who, sitting down on the grass, made a plentiful meal upon bread, butter, cheese, and a draught of beer, each of them carrying his own provision with him. The Spanish ambassador asking a countryman who these travellers were, was answered, "They are the deputies of our sovereign lords and masters the states." Upon which the ambassador cried out, "These people are never to be conquered; we must make peace with them." This is nearly the same thing as is said to have happened between the King of Persia's ambassadors, and those of the Lacedemonians.

ⁱ Anson's *Voy.* 4to. p. 42. *Lettr. Edif. des Jesuit.* t. 4. p. 92. *Rep. des Lettr.* t. 14. p. 1318. *Voy. de Coreal*, t. 1. p. 235. Don Ulloa's *Voyage*, v. 2. b. 7. ch. 13. p. 153. In consequence of the gold found in Guinea, the name of guineas originated; this name the English gave to the coin, which they struck from the gold they found in this country. Bosman, he says, saw a very large mass of gold, in his description of the coast of Guinea. *Let.* 6. p. 81. and *Let.* 7. p. 90.

^k *Lettr. Edif.* t. 2. p. 73. *Hist. Gen. des Voyag.* t. 10. p. 458. The ancients speak also of several rivers very famous for rolling down gold, silver,

the kingdom of Achem, where it is not necessary to dig into the earth for this valuable metal.

In like manner various accidents might discover the mineral substances, which the earth concealed in her bosom, as history abundantly testifies¹. There was a time,

silver, copper, and tin, in their waters. Plin. l. 33. sect. 21. p. 616. Lettr. Edif. t. 4. p. 9. Voyag. de Pyrard. p. 150. There are rivers which still possess this property. Lescarbot, Hist. de la N. France, p. 94. Vide Note, p. 97. and an Account of M. Commerçon and his Voyage round the World, in the Abbé Rozier's Observations sur la Physique, sur l'Histoire Naturelle, &c.

¹ The learned Goguet, in his Origine des Loix, l. 2. ch. 4. observes, that thunder might break off rocks or mountains, and thereby betray the precious metals they contained. Justin. l. 44. c. 3. Alonso Barba, l. 1. c. 23. p. 86. Hellot de la Fonte des Mines, p. 93. A gold mine was discovered in Peru by such an accident about the end of the last century. Voyag. de Frezier, pag. 147. Voyage au Perou par D. Ant. d'Ulloa, tom. 1. pag. 532. Ulloa's Voyage to South America. Sometimes winds, by tearing up the trees by their roots, have discovered metals and minerals. Alonso Barba, l. 1. p. 85. It is well known how the famous mines of Potosi were discovered. An Indian of Porco, named Gualpa, or Huelpa, in the year 1545, climbing up some rocks covered with trees and bushes in pursuit of some wild goats, took hold of a small tree, which grew in the cleft of a rock, and pulled it up by the root; he observed something glitter in the hole, which, upon examination, he found to be a mass of silver. Acasta, Hist. Nat. des Indes, fol. 139. v. Garcilasso, Hist. des Yncas, t. 2. l. 8. c. 24. p. 357. Ulloa's Voyage, v. 2. b. 7. ch. 13. p. 147. Near the city of La Conception, at a place called Estancia del Rey, the king's station, where, by washing, they get those bits of gold, which the Spaniards called Pepitas, that is, grains; there have been some found weighing ten marks, or eighty ounces, and extraordinary fine. Near the Cordilleras, there are mines of pure copper, so singular, that there have been found in them masses of above an hundred quintals weight, each quintal being an hundred weight. The Indians call one of those mountains Payen, that is, copper; and Don John Melendes, who

time, however, when the use of metals was unknown^m, when people employed flints, stones, the horns of animals, the bones of fishes, shells, reeds, and thorns, for all the purposes in which civilized nations use metals at presentⁿ: and even till within these few years, nations highly civilized, were totally

who made the discovery, called it St. Joseph. He drew thence one piece of 40 quintals weight, of which he was, during my stay at La Conception, making six field-pieces, all six pounders. Voyage de Frezier, p. 82. The same author, p. 169. mentions, that at Chuquiago, two leagues from La Paz, there are masses of pure gold, one of which weighed 514 ounces, and was bought by the Count de la Moncloa, Viceroy of Peru, to present it to the King of Spain. Another of 360 ounces weight fell into the hands of Don John de Mur in 1710, whilst he was corregidor of Arica. Upon the frequency and quantity of gold and mines, see Bossu's Louisiana, v. 1. p. 9. Recherch. Phil. sur les Amer. v. 1. p. 85. and particularly P. Martyr, de Novo Orbe, Dec. 1. l. 2. p. 17. l. 3. p. 19, 20. l. 3. p. 28. l. 9. p. 48. Dec. 2. ch. 1. p. 64. ch. 3. p. 52. ch. 4. p. 75. ch. 7. p. 85. Dec. 3. ch. 2. p. 102. 104. ch. 3. p. 107. ch. 4. p. 119. Dec. 3. ch. 7. p. 134. Dec. 3. ch. 8. p. 140. ch. 9. p. 145. ch. 10. p. 147. 152. Dec. 5. ch. 3. p. 194. ch. 5. p. 206. ch. 7. p. 214. ch. 10. p. 229. Dec. 6. ch. 2. p. 236. ch. 3. p. 238. Dec. 7. ch. 4. p. 259. ch. 8. p. 270. Wafer's Voyages, &c. p. 32. Description of the Isthmus of America, p. 69. 197.

^m Plato, de Leg. lib. 3. p. 805. Agatarchid. apud Phot. c. 48. p. 1369. Diod. lib. 3. p. 213. Strab. lib. 15. p. 1025. et 1032. lib. 16. p. 1123. Hist. Gen. des Voyag. t. 2. p. 643. Voyag. de Coreal, t. 1. p. 228. Mœurs des Sauvages, t. 2. p. 109.

ⁿ Herod. lib. 7. Diod. lib. 3. p. 185. Strabo, lib. 15. p. 1050. Lett. Edif. t. 11. p. 450. Voyage de Frezier, p. 64. 109, and 214. Hist. Nat. de l'Island, t. 2. p. 219. Voyag. à la Baye d'Hudson, t. 2. p. 167. Hist. Gen. des Voyag. t. 1. p. 9. and 22. Rech. des Voyag. Nord, t. 1. p. 220.

unacquainted with metals; while agriculture °, and many ingenious arts were cultivated ^p.

But the knowledge of metallurgy, and of chemistry in general, must have been long retarded for want of the principal agent in their operations, the discovery of fire ^q, which the ancients deemed so important, that

° Goguet, in his *Origine des Loix*, &c. lib. 2. c. 4. says, that “ without the art of working metals, agriculture never could have made any great progress, or have arrived at that degree of perfection in which we find it in the very first ages in some countries.” The History of Otaheite seems to oppose this conjecture. See Hawkesworth’s *Voyages*. Parkinson’s *Journal*. Cook’s *Voyages*; in which we meet with many beautiful descriptions of the agriculture of Otaheite.

^p See the preceding *Voyages*, and particularly the Description of Obeera’s Pyramid. Hawkesworth’s *Voyages*. And Cook’s Account of a Naval Review near Otaheite, v. 1. p. 319.

^q The inhabitants of the Marian Islands, which were discovered in 1521, had no idea of fire. Never was astonishment greater than theirs, when they saw it, on the descent of Magellan on one of their islands. At first they believed it to be a kind of animal that fixed itself to and fed upon wood. Some of them who approached too near it, being burnt, the rest were terrified, and durst only look upon it at a distance. They were afraid, they said, of being bit, or lest that dreadful animal should wound them with his violent respiration; for these were the first notions they formed of the heat and flame. *Hist. des Isles Mariannes*, par P. le Gobien, p. 44. Gem. Careri, *Voyag. du Tour du Monde*, t. 5. l. 3. ch. 5. p. 298. Such probably were the notions the Greeks originally formed of them. See *Plut.* t. 2. p. 86.

The inhabitants of the Philippine and Canary Islands were formerly as ignorant as those of the Marian. *Hist. Gen. des Voyag.* t. 2. p. 229. Hornius de *Origin. Americ.* lib. 1. c. 8. lib. 2. c. 9. In the island of Las Jordenas belonging to China, the use of fire was lately unknown. (*Locis citat.*) The same is said of several nations in America (*Mœurs des Sauv.* t. 1. p. 40.) particularly of the Amikouans, a people of South America,

E c

discovered

that they preserved the names of those, to whom they thought themselves indebted for it^r: though flints seem so familiar with us, it was many ages before Prometheus^s was supposed to strike fire from those substances;

discovered but a little while ago. Lett. Edif. t. 20. p. 224. This nation dwells in a mountainous country, far from the sea, and where there are no navigable rivers. La Condamine Relat. de la Riviere des Amazones, p. 106. This ignorance probably gave rise to the custom of eating the flesh of animals raw, which has prevailed in some antient nations, and is still used in many countries at present. Herod. lib. 1. n. 202. lib. 3. n. 98, 99. Arrian. Indic. p. 520. 566. Arist. de Mor. lib. 7. c. 6. t. 2. g. 91. A. Martini, Hist. de la Chine, t. 1. p. 20. Anc. Relat. des Indes, et de la Chine, p. 5. 15. Euseb. Præp. Evang. lib. 6. p. 274. B. Voyages de J. de Lery, p. 46. Rec. des Voyag. au Nord, t. 1. p. 226. 262. t. 8. p. 174. 203. 378. Lett. Edif. t. 4. p. 71, 72. t. 23. p. 239. t. 26. p. 286. Rec. des Voyag. de la comp. des Ind. Holland. t. 1. p. 579. 586. t. 5. p. 38. 101. 172. Gouget, l'Origine des Loix, &c. v. 1. lib. 2. See also the late Voyages to the South Seas. The people in the island of Otaheite, lately discovered in the South Sea, far excel most of the Americans in the knowledge and practice of ingenious arts, and yet they had not invented any method of boiling water; and having no vessel that would bear the fire, they had no more idea that water could be made hot, than that it could be made solid. Hawkesworth's Voyages, v. 1. p. 466. 484. Lord Monboddo, in his Origin of Language, speaking of the *Ιχθυοφαγοί*, and the *Τλοφαγοί* of Diodorus Siculus, says, they had had no use of fire, but roasted their fish upon the rocks by the heat of the sun.

^r Sanchon. apud. Euseb. p. 34. Diod. lib. 1. p. 17. lib. 5. p. 381. Martini, Hist. de la Chine, t. 1. p. 21. Hygin. Fab. 144. Paus. lib. 2. c. 19.

^s About 1715 years before Christ. Vid. Plin. lib. 7. sect. 57. p. 415. The ferula of the ancients (*Νάρθηκα* from *Ναρθήξ*) is a plant, whose stalk is full of white spongy pith or marrow (Corol. Inst. Rei Herb. 22.) which being well dried, takes fire like a match; this fire holds a long time, very gently consuming the marrow without damaging the bark, which makes the Asiatics use this plant in carrying fire from one place to another. This use is of the earliest antiquity, and may help to explain a passage in

substances; and the discovery appeared so great, that he was said to have stolen it from heaven, and to have been the inventor of arts.

Accident might have discovered to primeval nations, where no such bodies were to be found, that the friction of two pieces of wood against each other would produce fire ^t. The Phœnicians ^u, the Chinese ^w, and

in Hesiod (*Op. et Dies*, ver. 52.) who, speaking of the fire which Prometheus stole from heaven (*Clara Promethei munere ligna fumus*. *Maët. Epigr.* l. 14.) says, that he brought it in a ferula. The foundation of this fable doubtless proceeds from his inventing the steel (*Diod. Sic. Biblioth. Hist. lib. 5.*) that strikes fire with flint. *Tournefort's Voyage into the Levant*, v. i. l. 6. p. 260.

^t *N. Relat. de la France Equinoïse*, p. 178. *Hist. de la Virginie*, p. 313. *Hist. Nat. de l'Islande*, t. 2. p. 201. *Voyag. by Dampier*, t. 1. p. 143. Father Hennepin was an early witness of the manner of procuring fire used by the Northern Indians, which I shall give in his own words: "As soon as we got on shore, an Indian fell to cutting of grass, which he made into three little heaps, and bade us sit down upon them. Then he took a piece of cedar, which was full of little round holes, into one of which he thrust a stick of a harder substance than the cedar, and began to rub it about briskly between the palms of his hands, till at length it took fire." *New Discovery of a large Country in America*, p. 162. See also his *Continuation*, p. 112. *Labat Voyage aux Isles*, t. 4. ch. 16. p. 343. There is also a particular Description of the same. *Mœurs des Sauvages*. This method was sometimes used by the ancient Persians to kindle the consecrated fire. *Picart's Relig. Ceremonies*, v. 5. p. 412.

^u The Phœnicians, who were once ignorant of the use of fire (*Banier, Explic. des Fab.* t. 3. p. 201.) attribute their discovery of it to the collision of trees and reeds from the violence of the wind. *Sanchon. apud Euseb.* p. 34, 35. *Thucyd.* lib. 2. n. 77. p. 147. *Lucret.* lib. 1. v. 876. lib. 6. v. 1097. *Vitruv.* lib. 2. c. 1. *Diod.* lib. 3. p. 217. *Plin.* 12. sect. 42. p. 669. *Suidas Voce Δρυμῶν*, l. 1. p. 629. *Memoir. de Trev.* Jan. 1749. p. 129.

^w The Chinese, who confess that their progenitors were unacquainted with

the Greeks ^x, have preserved such traditions of its origin. Many natural phenomena might likewise afford it: by lightning alone we frequently experience its existence, and the Egyptians first traced it from this source ^y. Volcanoes afford one both more obvious and permanent; as well as aphtha and other inflammable matters, which abound in many countries ^z.

In

with the use of fire (Martini Hist. de la Chine, t. 1. p. 20. Essai sur les Hierogl. des Egypt. p. 448.) say, that Sui-gin-schi, one of their first kings, taught them how to kindle fire, by rubbing two pieces of wood strongly against each other. (In locis citatis).

^x The Greeks acknowledge, that their ancestors were once without the use of fire (Diod. lib. 5. p. 584. Plutarch. t. 2. p. 86. Paus. lib. 2. c. 29.) and that it was discovered by the friction of two sticks. Plin. lib. 4. sect. 22. p. 212. Solin. c. 11. p. 22. Acad. des Inscript. t. 3. p. 385. Tournefort, Voyag. du Levant. t. 1. p. 244.

^y Diod. lib. 1. p. 17.

^z Physique de Rohault. vol. 2. p. 237. Journal des Sav. Avril 1685. p. 104. Colonne Hist. Natur. t. 1. c. 4. Hist. Nat. de l'Islande, t. 1. p. 8. 109. Mem. de Trev. Jan. 1702. p. 9. Merc. de France, Oct. 1726. p. 2249. 2254. Dec. 1732. p. 2866. Jan. 1733. p. 129. Febr. p. 34. In some places of Italy (Mem. de Trev. Oct. 1708. p. 1753. Acad. de Sciences Année 1706. M. p. 336.), and elsewhere (Piganiol. de la Force, Descript. de la France, l. 5. p. 12.), the earth sets fire to any combustible matter that is laid upon its surface. In the province of Kamfi in China there are burning wells, where the inhabitants dress their victuals by suspending their pots over the mouths of them. (Hist. de la Chine, par le P. Sunido, p. 30. Martini, Atlas Sirv. p. 37.) There are the like in Persia, where the ancient sovereigns of that country erected their kitchens. Arist. de Mirab. Aufcult. p. 1153. 1163. In several countries there are springs of water so hot, that the inhabitants boil their meat in them only by immersion, without a pot, or any other vessel. Journ. des Sav. Mai 1665. p. 73. Hist. Nat. de l'Islande, t. 1. p. 28. Geograph. de Varen. t. 2. p. 374. Edit. Paris 12. 1755. It often happens, that subterraneous fires, breaking out in the midst of forests, woods, and coppices, set them

on

The art of dyeing, and of fixing certain colours, was a department of chemistry cultivated in very early times ^a. The Tyrian purple is proverbial from its cele-

on fire, and destroy them. (Strab. lib. 12. p. 812. Acad. des Scien. t. 1. p. 426.) Goguet, l'Origine des Loix, lib. 2. Ulloa's Voyag. v. 2. b. 7. ch. 2. p. 23. ch. 7. p. 80. et seq. Sonnerat, in his Voyage de la Nouvelle Guinée, &c. says, he found, about two leagues from Calamba, in a small village, a rivulet, whose water was boiling hot; for Reaumur's thermometer being plunged into it, even at the distance of a league from its source, rose to 69 degrees, and yet the author found there, to his inexpressible surprize, plants and shrubs in the fullest vigour, though their roots were steeped perpetually in this boiling water, and their branches were surrounded with the thick vapour it sent forth, a vapour so suffocating, that the swallows, which ventured to pass over the stream, even at the height of seven or eight feet, fell down motionless. The author also saw fish swim in this boiling water with such agility, that he was unable to catch one. He observed they had brown scales, and were about four inches long.

^a Various dyes, besides the purple, were discovered in these early periods of the world; and their colours were very durable. Plin. l. 9. sect. 62. Plutarch, in the Life of Alexander, tells us, that the conqueror found among the treasures of the king of Persia a prodigious quantity of purple stuffs, which for one hundred and eighty years (the time they had been kept) preserved all their lustre and their primitive freshness. Plut. t. 2. p. 433. B. and p. 686. D.

We find in Herodotus (says Goguet, in his Origine des Arts, l. 2. c. 2. art. 1.) that certain people on the borders of the Caspian sea imprinted on their stuffs designs either of animals or flowers, whose colour never changed, and lasted as long even as the wool of which their cloths were made. They used for this business the leaves of certain trees, which they bruised, and diluted in water. Herod. l. 1. n. 203. We know that the savages of Chili make, with certain plants, dyes, which will bear washing with soap many times without losing their colour. Voyag. de Frezier, p. 72. Pliny describes the way which the Egyptians made painted linen, whose colours were so adhesive, that it was not possible to change them, whatever washings they afterwards gave to the cloth, which became firmer by admitting the dye. L. 35. sect. 42. p. 709.

celebrity^b; it became at length a royal colour, that was specially consecrated to the service of the Deity. Moses used stuffs of this colour for the works of the tabernacle, and for the habits of the high priest. Among the presents which the Israelites made to Gideon, the Scripture makes mention of purple habits found among the spoils of the kings of Midian^c. The Babylonians gave purple habits to their idols^d. The Pagans were even persuaded, that the purple dye had a particular virtue, and was capable of appeasing the wrath of the gods^e. Homer gives purple vestments to heroes and princes^f. The Phœnicians themselves reserved this colour for their sovereigns^g, and most nations of antiquity have adopted the custom, and many of the modern still continue it.

The species of murex^h, from whence the Tyrian purple

Moses speaks of stuffs dyed sky-blue, purple, and double scarlet; and also of the skins of sheep dyed orange and violet. Exod. ch. xxv. v. 4, 5.

^b Vide Arist. Hist. Animal. l. 5. c. 15. p. 844. Plin. l. 1. sect. 63. p. 527. l. 22. sect. 3. Athen. l. 12. p. 526. D.

^c Judges, ch. viii. v. 26.

^d Jeremiah, ch. x. v. 9. Baruch, ch. vi. v. 12. and 71.

^e Diis advocatur placandis. Plin. l. 9. sect. 60. p. 525. Cicero, Epist. ad Attic. l. 2. Ep. 9. t. 8. p. 115.

^f Iliad. l. 4. v. 144. l. 5. v. 73. l. 6. v. 219. 273. 363.

^g Cedren. p. 18. Vide Suid. in Voce *Περαιων*, t. 2. p. 73.

^h The purple dye was drawn from many sorts of sea-shells. The best were

purple was procured, is found in many parts of Europe, on the coasts of Englandⁱ, Poitou^k, and Pro-

were found near the isle where New Tyre was built. Plin. l. 6. sect. 60. p. 524. They fished for them in other places of the Mediterranean. The coasts of Africa were famous for the purple of Getulia. Plin. l. 5. sect. 1. p. 242. l. 9. sect. 60. p. 524. The coasts of Europe supplied the purple of Laconia, which they had in great esteem. Ibid. Pausan. l. 3. c. 21. p. 294. l. 10. c. 37. p. 893. Horat. Carmin. l. 2. Od. 18. v. 8. Pliny ranges in two classes all the sorts of testaceous fish which served to dye purple; the buccina or trumpet-fish, are the shells called *purples*, from the name of the colour they furnish. Plin. l. 9. sect. 61. p. 525. These last were particularly sought after. They found, by the account of the ancients, in the throat of the fish, a white vein, which contained a dark red colour. Arist. Hist. Anim. l. 5. c. 15. p. 844. Plin. l. 9. sect. 60. p. 524. This was the ground of purple dye. All the rest of the shell was useless. Ibid. Vitruv. l. 7. c. 13. The essential point was to take these fishes alive; for the moment of their death they lost this precious liquor. Ibid. Ælian. de Animal. l. 7. c. 1. They collected it carefully. After having left it to macerate in salt for three days, they mixed it with a certain quantity of water. They boiled the whole in a leaden pot over a slow and moderate fire for ten days. They afterwards put in the wool, being well washed, cleansed, and properly prepared. Cicero, Philos. Frag. t. 3. p. 424. At first they left it to soak for five hours; they then took it out, carded it, and put it again into the boiler, till all the dye was drank up and consumed. Plin. l. 9. sect. 62. p. 526. They were obliged to mix different sorts of shells to make purple. Ibid. They added to it various sorts of ingredients, as nitre, human urine, water, salt, and fucus, a sea-plant of which the best sort is found in abundance on the rocks of the isle of Crete. Ibid. p. 526. sect. 64. p. 527. l. 13. sect. 48. p. 700. l. 26. sect. 66. l. 31. sect. 46. p. 565. l. 32. sect. 22. p. 581. Plutarch, t. 2. p. 433. Theoph. Hist. Plant. l. 4. c. 7. p. 82. Turneb. Adversar. l. 9. c. 5. Conf. Fab. Column. de Purpura ex Animal. Testaceo fusa. The Syrians used nothing to make their colour, but purple shells taken out at sea. They made a bath of the liquor they drew from these fishes. They steeped their wool in this a certain time. They afterwards took it out, and put it into another boiler, where there was nothing but buccina, or trumpet-fish. Plin. l. 9. sect. 62. p. 526.

ⁱ Journal. des Sçav.. Aout. 1686. p. 195, &c.

^k Acad. des Sciences, An. 1711. Mem. p. 168, et 179.

vence,

vence¹, and the manufacture of it is now carried on at Panama in South America^m: but the discovery of cochineal has afforded an excellent substitute for the juice of the murexⁿ.

The invention of the Phœnician purple has been attributed to a shepherd's dog^o, who, pressed by hunger, broke a shell on the sea-shore: the blood which ran from it stained the dog's mouth with such a colour, as struck with admiration those that saw it^p. Others, however, give it a nobler origin, and attri-

¹ Acad. des Scien. An. 1736. Mem. p. 49.

^m Ulloa's Voy. to South America, v. 1. l. 4. ch. 8. p. 168, 169, 170. wherein is related a particular description of the preparation of that exquisite purple, so highly esteemed among the ancients.

ⁿ The difficulty of collecting the purple dye, and the consequent expence of it, would tend to its disuse. The vein of the shell-fish, from whence they got the purple, only furnished a very small quantity of liquor. Besides, it must be collected before the death of the fish, without reckoning the other preparations, which required much time and precaution, and without mentioning the risk they ran in fishing for these shells at the bottom of the sea. Vid. Acad. des Sciences 1736. Hist. p. 8. Arist. Hist. Animal. l. 5. c. 15. p. 844. Plin. l. 22. sect. 3. Acad. des Scien. 1711. Mem. p. 166, 167.

^o It is said, that the shepherd wiped the mouth of this animal, which he thought bloody, with wool. Hercules took that wool, and carried it to the king of Phœnicia. Palæphat. Achil. Tati. de Clitophon. et Leucipp. Amor. l. 2. p. 87. Palæphat. in Chron. Paschal. p. 43. Casiodor. Viar. l. 1. Ep. 2. p. 4. Goguet, l'Origine des Loix, &c. l. 2. c. 2. art. 1.

^p Ibid.

bute the discovery to the Tyrian Hercules¹, the companion of Jason in the Argonautic expedition, 79 years before the taking of Troy, and 1263 years before

¹ The ancients, observes the learned Bryant, in his *Mythology*, v. 1. p. 343. very gratefully gave the merit of every useful and salutary invention to the gods. Ceres was supposed to have discovered to men corn and bread; Osiris shewed them the use of the plough; Cinyras of the harp; Vesta taught them to build. Every deity was looked up to as the cause of some blessing. The discovery of the purple dye to Hercules of Tyre; the same who by Palæphatus is stiled Hercules Philosophus. But some will not allow him this honour; but say, that the dog of Hercules was the discoverer, as Cassiodorus observes, “Cum famæ canis avida in Tyrio littore projecta conchylia impressis mandibulis contudisset, illa naturaliter humorem sanguineum diffuentia ora ejus mirabili colore tinxerunt: et ut est mos hominibus occasiones repentinas ad artes ducere, talia exempla meditantes fecerunt principibus decus nobile,” l. 9. c. 36. Confer Cyrus Prodrumus, *ἐπὶ ἀποδημῶν τῇ φίλῃ*. Nonni Dionysiaca. l. 40. p. 1034. It is not, however, likely, that a dog would feed upon shell-fish; and if this may at any time have happened, yet, whoever is at all conversant in natural history, must know, that the murex is of the turbinated kind, and particularly aculeated, having strong and sharp protuberances, with which a dog would hardly engage. The story is founded upon a misconception. Hercules of Tyre, like all other oriental divinities, was stiled Cahen, Cohen, and Chon, as was allowed by the Greeks themselves; this sacred title they changed to *κυων*, a dog, which they described as an attendant upon the deity. Johannes Antiochenus, who tells the story at large, says, that purple was the discovery *κυωντος ποιμενικος*, which in the original history was undoubtedly a shepherd king. Vide Cohen in Bryant’s *Myth.* v. 1. p. 329. 343. V. 2. p. 33. V. 3. p. 341. 558.

Some authors bring love into the discovery of purple. Hercules, say they, being taken with the charms of a nymph called *Tyros*; his dog one day finding on the sea-shore a shell, broke it, and stained his mouth with purple. The nymph observed it: charmed at first sight with the beauty of the colour, she declared to her lover, that she would see him no more, till he brought her a suit dyed the same colour. Hercules, to satisfy his mistress, collected a great number of these shells, and succeeded to stain a robe, of the colour the nymph had demanded. Pollux, l. 1. c. 4. p. 30.

the Christian æra. An ingenious author^r, who has taken as much pains to enhance the knowledge of the Egyptians, as Dr. Woodward did to depreciate it^s, is of opinion that the numberless mummies which still endure, after so long a course of ages, ought to ascertain to the Egyptians the glory of having carried chemistry to a degree of perfection attained but by few. In their mummies alone there is such a series and contexture of operations, that some of them still remain unknown, notwithstanding all the attempts of some of the ablest moderns to recover them. The art of embalming bodies, for example, and of preserving them for many ages, is absolutely lost; and never could have been carried so far, as it was by the Egyptians, without the greatest skill in chemistry^t. All the essays to restore this art have proved ineffectual; nor have the reiterated analyses made of mummies, to discover the ingredients of which they were composed, had any better success. Some moderns have attempted, by certain preparations, to preserve dead bodies intire, but all to no purpose. The mummies of Lewis de Bils^u, who was regarded

^r Dutens, *Recherches sur l'Origine des Découvertes attribuées aux Modernes*, ch. 5. whose authority I have adopted.

^s *Archæologia of the Society of Antiquaries of London*, v. 4.

^t Herodot. in Euterp. l. 2.

^u Lewis de Bils (Bilsius) of Copenhagen. Gabriel Clauder, physician to the Duke of Saxony, an. 1679. Tobias Andreas Epist. an. 1682. *Act. Erud. Lipsenf.* an. 1683. *Ment. Jul.* p. 270. Conringius, *de Sapientiâ*. *Comp. Brydone's Account of the Mummies preserved in Italy*, p. 81. n.

as eminent in that way, are already in a state of corruption. There were also in those mummies of Egypt many things besides, which fall within the verge of chemistry: such as their gilding*, which is so very fresh, as if it were but of fifty years standing; and their stained silk, still vivid in its colours, though after a series of thirty ages. In the Museum of London there is a mummy covered all over with fillets of granated glass, various in colour, which shews that this people understood not only the making of glass, but could paint it to their liking. It may be remarked here, that the ornaments of glass, with which that mummy is bedecked, are tinged with the same colours, and set off in the same taste, as the dyes in which almost all other mummies are painted; so that it is probable, that this kind of ornaments being very expensive, was reserved for personages of the first rank only, whilst others, who could not afford this, contented themselves with an imitation of it in painting.

In the ages of which I am speaking, a very important discovery in chemistry was certainly made, that of fermentation. In all countries mankind have been solicitous to invent some liquor more agreeable than water, and more suitable to strengthen the body, and exhilarate the spirits. Among polished nations,

* The ancients also understood gilding with beaten and water gold.—Æs. inaurari argento vivo, legitimum erat. Plin. Hist. Nat. l. 33. c. 3. Vitruv. l. 7. c. 8.

says a celebrated historian *, where a succession of various functions and amusements keeps the mind in continual occupation, the desire for strong drink is regulated, in a great measure, by the climate, and diminishes or increases according to the variations of its temperature. In warm regions, the delicate and sensible frame of the inhabitants does not require the stimulation of fermented liquors. In colder countries, the constitution of the natives, more robust and more sluggish, stands in need of generous liquors to quicken and animate it. But among savages the desire of something that is of power to intoxicate, is in every situation the same. While these are engaged in war, or in any interesting situation, the powers of nature are roused to the most vigorous exertions. But these animating scenes are succeeded by long intervals of repose, during which the savage meets with nothing that he deems of sufficient importance to merit his attention. He languishes in this season of indolence. The posture of his body is an emblem of the state of his mind. In one climate cowering over the fire in the cabin, in another stretched under the shade of some tree, he dozes away his time in sleep, or in an unthinking joyless inactivity, not far removed from it. As strong liquors awake him from this torpid state, give a brisker motion to his spirits, and enliven his

* Dr. Robertson, in his History of America, v. 1. p. 397, 398. Confer. Goguet l'Origine des Loix, l. 2. c. 3. Gumilla, v. 1. p. 257. Lozano Descript. de Gran Chaco, p. 56. 103. Ribas, p. 8. Ulloa, v. 1. p. 249. 337. Marchais, v. 4. p. 436. Fernandez Mission. de las Chiquit. 35. Barrere, p. 203. Blanco Convers. de Piritu, 31.

whole frame, his love of them grows excessive, and from a pensive melancholy animal, he becomes gay, frolicksome, and transported ^y.

The juice of the grape was the earliest fermented liquor we read of. The arkite patriarch, who resided at the bottom of mount Baris, or Luban^z, the Ararat^a of Moses, planted the vine^b, and cultivated it in this region, and was the first person that experienced the inebriating effects of its grape^c. According to the

^y Vid. Virg. Georg. l. 1. p. 24. Melendez Tesoros Verdad, v. 3. p. 369. D'Acugna's Voyages and Discoveries, p. 59.

^z Laban and Luban, or Labar and Lubar (Epiphanius, l. 1. p. 5 & 6. Cedrenus, p. 11, 12.) is the same mountain as that called mount Baris by Nicolaus Damascenus (Euseb. Præpar. Evang. l. 11. p. 414.) and as the Ararat of Moses. See Bryant's Analysis, v. 2. p. 447. v. 3. p. 21.

^a Genes. ch. 8. v. 4.

^b Genes. ch. 9. v. 20. Berofus apud Euseb. Chron. p. 8. Several countries produce grapes spontaneously. Diod. l. 3. p. 231. 239. l. 4. p. 237. Strabo, l. 15. p. 1017. Rec. des Voyages au Nord, t. 5. p. 40. t. 9. p. 143. Lescarbot, Hist. de la Nouv. France, p. 562. These grapes make very good wine.

^c Genes. ch. 9. v. 21. This was probably a discovery posterior to the deluge; for Noah was surprized at the effects of the liquor. It was perhaps accidental, like to the Indians, who first made incisions in the bark of certain trees, with a view of drinking the cooling liquor which distilled from them; but soon found, that by being kept in vessels, it acquired different and more agreeable qualities. Barry's Observations on the Wines of the Ancients.

The poets, who were inspired by wine, celebrate its praises; and not satisfied with allowing it to be a most useful human invention, ascribe it to the gods, to Osiris, Saturn, and Bacchus, and call it their heavenly

H h

nectar.

the Egyptian traditions, Ofiris ^d was the first who cultivated the vine, and communicated to mankind the art of making wine ^e. The inhabitants of Africa attribute the same ^f to the elder Bacchus ^g. They are both referable to the patriarch Noah ^h. Melchizedeck,
king

nectar. Homer distinguishes it by the name of *ποτον θεϊον*, a divine beverage. In his time the vine flourished, and various wines were well known; and by the praises which he bestowed on them, he seems, as Horace observes (*Laudibus arguitur vini vinofus Homerus. Ep. xix. l. 1.*) to have often experienced their salutary effects: his heroes were animated by it in their councils, and in the field; and Nestor was not more remarkable for his length of years, than for his large draughts of wine. The women in his time were, equally with the men, allowed the use of it, which by the Romans, in the early time of the common-wealth, was denied them; and he celebrates Nausica for entertaining with it her virgin companions. Barry's Observations on the Wines of the Ancients.

^d See Bocharti Opera, Banier's Mythology, Ramfay's Cyrus, and other Writers on Mythology. Comp. Bryant's Analysis, v. 1. pag. 302. 306. 309. 310. 316. 372. 400. V. 2. p. 30. 56. 73. 78. 147. 163. 198. 203. 220. 223. 226. 251. 270. 328. 332. 391. V. 3. p. 40. n. 217. 344. 411. 444. Bryant's Observations on Ancient History, p. 166.

^e Diod. l. 1. p. 19. Comp. Genes. ch. 40. v. 9, &c.

^f Diodor. l. 3. p. 239.

^g Bacchus, in Scripture called Chus, the father of Nimrod, Alorus, or Orion. See Bryant's Analysis, v. 1. p. 123. 177. 308. 313. 316. 361. 456. v. 2. p. 199. v. 3. p. 40. 195. 213. 229. 274. 411. 418. 444. 454. Bryant's Observations, p. 149. Banier's Mythology, v. 2. p. 436. et seq. p. 457. Bocharti Opera, *passim*.

^h Noah, the arkite patriarch, had different appellations in different places, and his titles were multiplied from his various attributes. Thus we find him mentioned under the names of Nous, Nufus, Noachus, Nus, Nys, Noys, Noos, Noa, Pachus, Num, Noas, Noasis, Cronus, Deus, Dios, Dionusus, Sefostris, Seisithrus, Xixouthros, Menes, Zuth, Zeus, Zeuth, Cecrops,

king of Salem, offered a thanksgiving of bread and wine for the victory gained by Abraham¹.

In

Cecrops, Canobus, Canopus, Atlas, Noubi, Deus Lunus, Hermes, Thoth, Osiris, Phoroneus, Prometheus, Janus Poseidon, Nereus, Proteus, Cronus, Oan, Oanes, Oannes, Hippius Taureus, Sifuthrus, Myr-medon, Fohi, Chin-nong. See Bryant's Analysis, v. 2. p. 58. 198. 200. 204. 207. 211. 220. 225. 231. n. 264. 270. 275. 294. 435. v. 3. p. 120. 195. 392. 583. 584. Gebelin, Monde Primitif Analyzé, et comparé, &c. et Plan Général et Raisonné, &c.

¹ Genes. ch. xiv. v. 18, The juice of the grape was early brought to a high degree of perfection. The Mareotic wine is well known, which was produced in Scythia Ægyptiaca; and is represented as very powerful.

Hæc illa est, Pharios quæ fregit noxia reges,
Dum servata cavis potant Mareotica gemmis.

Gratii Cuneget. v. 312.

All the Ionian coast about Gaza in Palestine was famous for this liquor: as was the region near Sarepta, at the foot of Libanus. The wines of these parts are spoken of by Sidonius Apollinaris, and ranked with the best of Italian and Grecian growth.

Vina mihi non sunt Gagetica, Chia, Falerna,
Quæque Sareptano palmite missa bibas.

Carm. 17. v. 15.

Above all, the wine of Chalybon in Syria is mentioned as of the highest repute. We learn from Strabo, that at one time it was entirely set apart for the use of the kings of Persia, l. 15. p. 1068. It is taken notice of by the prophet Ezekiel, when he is speaking of the wealth of Tyre, chap. xxvii. v. 18. "Damascus was thy merchant in the multitude of the wares of thy making, in the multitude of all riches, in the wine of CHELBON, and white wool." Cyprus, Crete, Chos, Chios, and Lesbos, called Æthiophe, were famous on the same account. There was also fine wine very early in Sicily about Tauromenium, in the country of the Læstrygons and Cyclopians. Homer. Odyss. i. v. 357. In Thrace were the Maronian wines, which grew upon mount Ismarus, and are celebrated by Homer, Odyss. i. v. 196. and Pliny, l. 14. c. 16. p. 714. But no place was in more repute than Campania, where were the Formian and Faler-

nian

In countries unfavourable to the cultivation of the grape, other productions have been substituted. Beer, the result of a much more intricate process than wine, was drank in the earliest ages^k. Where these were wanting^l, several nations have been habituated to drink the blood of the animals they slew, while hot^m; a custom

nian grapes. Some of very noble growth were to be found in Iberia and Mauritania. In the latter, writers mention vines so ample, that they equalled the trees of the forest. Strabo says, that their trunks could hardly be grasped by two men; and that their clusters were a foot and a half in length, l. 17. p. 1182. There was wine among the Indic Ethiopians, particularly in the country of the Oxydracæ (Strabo, l. 15. p. 1008.) who were supposed to be the descendants of Bacchus. They had also a strong drink made of rice, which was particularly used at their sacrifices. Ibid. p. 1035. In like manner the people of Lusitania and Bætica made a fermented liquor called Zuth; the knowledge of which was borrowed from Egypt, Herod, l. 2. c. 77. Hence they were supposed to have been instructed by Osiris. Hesychius calls it wine, and says, that it was made of barley. It is also mentioned by Strabo, l. 3. p. 233. See Bryant's Ancient Mythology, v. 3. p. 511. from which this note is extracted.

^k Diod. l. 1. p. 24.

^l Hist. Nat. de l'Islande, t. 2. p. 202.

^m Strabo, l. 16. p. 1121. l. 17. p. 1177. Virg. Georg. l. 3. v. 463. Martini, Hist. de la Chine, l. 1. p. 20. It has been related by some writers, that the blood of young persons or animals was conveyed into the veins of aged persons, in order to render them younger; and Heister in his surgery has described this process. In the days of chivalry, a certain Arcadian fountain was sought after for this purpose, and some early navigators thought they had discovered it in America. It is certain, however, that Lewis the XIth of France, famous for his mistresses, his bastards, and his devout pilgrimages, when sensible of the approaches of death, shut himself up in the castle of Pléssis-les-tours, and, inaccessible to every one, surrounded by guards, and a prey to the most bitter reflections, sent for a hermit of Calabria, called Francisco Martorillo, since adored

adored as a saint, under the name of St. Francisco de Paulo, and throwing himself at his feet, entreated him with a flood of tears to intercede with God, that his life might be prolonged; "as if the voice of a Calabrian friar," says Voltaire, "in a village of France, could arrest the ordinance of God, or preserve a weak and perverse soul in a worn-out body, contrary to the rules of nature. While he was thus begging for life of a foreign hermit, he thought to recruit the weak remains that were left, by drinking the blood of young children, fondly imagining to correct thereby the acrimony of his own. This prince always went covered with relics, and constantly wore a leaden figure of the Virgin Mary in his hat, of which it is said he used to ask pardon for his murders before he committed them. He made the Virgin Mary a Countess, by conferring a deed of the Earldom of Bologna on the Holy Virgin." The Jews prescribed the drinking the blood of young children to old persons troubled with the apoplexy, leprosy, or convulsions. *Oeuvres de Voltaire*, t. 3. ch. 80. *Wraxall's Memoirs of the Kings of France of the Race of Valois*.

Sheldon relates, that a Mahometan priest, who was desirous of destroying the enemies of his prophet, foretold the king of Arrakan, that he would not live long; but that to prolong his life, he should sacrifice six thousand of his subjects, four thousand white cows, and two thousand white doves, and take out their hearts, and make a composition, upon which he should live. The king followed the advice, by an immediate massacre of his subjects.

The Morlacks, whether they happen to be of the Roman or of the Greek church, have very singular ideas about religion; and the ignorance of their teachers daily augments this monstrous evil. They are as firmly persuaded of the reality of witches, fairies, enchantments, nocturnal apparitions, and fortileges, as if they had seen a thousand examples of them. Nor do they make the least doubt about the existence of vampires; and attribute to them, as in Transylvania, the sucking the blood of infants. Therefore when a man dies suspected of becoming a vampire, or *veckodlak*, as they call it, they cut his hams, and prick his whole body with pins; pretending, that after this operation he cannot walk about. There are even instances of Morlacchi, who, imagining that they may possibly thirst for children's blood after death, entreat their heirs, and sometimes oblige them to promise to treat them as vampires when they die. *Strange's Travels into Dalmatia*, just published.

A wooden cross, and a large stone, placed at the head, are put into the grave, to prevent the dead from becoming a vampyr, or a strolling nocturnal

a custom still prevalent among some savage nationsⁿ; which they suppose strengthens the constitution^o.

Many

turnal bloodsucker. Baron Born's Travels through the Bannat of Temeswar, Transylvania, and Hungary, an. 1770. Lett. 3.

The leprosy was hardly known in the northern parts, until it was imported from Africa and Asia in the time of the Crusades. Lewis VIII. of France, by his will in 1225, bequeathed one hundred sols to each of the two thousand Lazarettos in his kingdom, which is a proof of the increase of the leprosy during the Crusades.

With respect to the fountain above-mentioned, said to make old people young, it was once generally credited. P. Martyr not only believed it possible, but adduces proofs of it. Vide Dec. 2. ch. 9. p. 93. and particularly Dec. 7. ch. 7. p. 265. It is known, says Bossu, in his Travels, v. 2. p. 6. that Don Juan Ponce de Leon discovered Florida as he was in search of Bimini, the isle containing the river Jordan and the fountain, so renowned by the Indians of Cuba, who asserted that its waters had the quality of making men young again. Leon believed this fable, and went in search of the fountain without finding it. He sent Capt. Perez de Ortubia, and the pilot de Antonio de Alminos upon this discovery: he touched at the bay of Puerto Rico, where he found Bimini, but neither the river Jordan, nor the fountain. Don Juan died some time after, unsuccessfully searching for this famous fountain.

When the account of this fountain was first transmitted to Madrid, many Spaniards embarked at Cadiz to go in pursuit of it; but when they returned, every one found that they had been deceived; instead of being young, they were grown older, and the people laughed at their long and troublesome voyage, which, however, was attended with the discovery of Cape Corrientes.

ⁿ Hist. Nat. de l'Islande, t. 2. p. 202. 252. Buffon, Nat. Hist. t. 3. p. 485. Hawkesworth's Voyages.

^o Goguet, in his l'Origine des Loix, b. 2. art. 2. observes, that those people, who hunt wild goats and shamoys upon the Alps, always drink the blood of the beasts as soon as they are killed. Having asked them the reason of this practice, they told him, nothing was so strengthening as blood drank hot. Bosman says, that Anqua, a commander of the Jabise negroes on the Gold Coast, frequently refreshed himself, by drinking

Many nations of antiquity, before they knew the vine, collected wild honey, which they fermented into hydromel ^p, a liquor still frequent in Abyssinia, Poland, and Muscovy. The Tartars ^q, the Moxes ^r,
and

ing the blood of his captives, and sometimes of his wives. Description of the Coast of Guinea, Let. 2. p. 23.

^p Plutarch. Sympof. l. 5. p. 672. The grape, the pear, and the cherry were introduced into England in 1550. Xenophon, in his Expedition of Cyrus, &c. mentions Cerazunt, a Greek city, situated in the country of the Colchians near the sea, and a colony of the Sinopians. From this city Lucullus, in his return from his expedition against Mithridates, brought cherry-trees into Italy, in the year of Rome 680; and 120 years afterwards they were carried into Britain; they seem to have had their name from this, or the city from them. Tournefort tells us, that he found all the hills, in the neighbourhood of it, covered with those trees. Cerazunt (*εἰς Κερασούντα*) was afterwards called Pharnaceia, though Ptolemy, Strabo, and Pliny make them different towns. Xenophon, l. 5. Pliny, l. 15. ch. 25. Ammianus Marcellinus says, that Lucullus was the first, that from hence carried these trees to Rome; and Pliny observes, that they were not known before the battle which Lucullus fought with Mithridates. Tournefort's Levant, v. 3. l. 5. p. 58. In the year 1540, cherry-trees from Flanders were first planted in Kent. Anderson's Chron. Deduction of Commerce. Lord Kaims's Sketches of the History of Man, sect. 1.

^q They extract from the milk of off mares made sour, a kind of liquor, almost as strong as brandy. Marco Polo, l. 1. c. 57.

^r A barbarous nation of America, make a strong liquor of certain roots putrefied, and infused in water. Lett. Edif. t. 10. p. 194, 195.

^s They extracted an intoxicating liquor called Chicha, from Maize, or the Manioc root, which is first chewed by their women, and the saliva, like yeast, excites a vigorous fermentation, and in a few days the liquor becomes fit for drinking, which these people are passionately fond of. Lett. Edif. t. 25. p. 195. Acosta, Hist. Nat. des Indes, fol. 162. Dampier's Voyages. Water's Voyages, &c. p. 8. Description of the Isthmus
of

and different tribes of Americans², the Otaheiteans³,

of America, p. 154. Voyag. de Frezier, p. 62. Voyag. de J. de Lery, p. 124. Voyag. des Holland. t. 2. p. 38. Gouquet l'Origine des Loix, l. 2. art. 3. Stadius ap. de Bry, t. 3. p. 111. Robinson's America, v. 1. p. 397. Ulloa's Voyage to South America, v. 1. b. 5. ch. 5. p. 263. and at p. 289. ch. 7. he specifies the medicinal qualities of this drink. See also b. 6. ch. 6. p. 405. Lafitau Mœurs des Sauvages, t. 2. p. 114. See likewise the History of Maby, p. 116. This kind of fermented liquor is known in Africa, and is still common in the West India islands. The negroes ferment the juice of the sugar cane, and term it Maby, which they use in funeral rites, and throw it upon the graves of their deceased friends, in order to assist them in their journey towards the other world. See Lafitau Mœurs des Sauvages, t. 2. p. 116. et seq. and particularly Fermin, Description de Surinam, t. 1. p. 66. et seq. in which he has given an accurate description of the Manioc, and its culture. See also Labat, Nouveau Voyage aux Isles de l'Amerique, t. 1. ch. 16. p. 379. The bread made from this poisonous vegetable is used at the tables of the best families in the West Indies. I have eat it there, and do not think it inferior to wheaten bread. Vid. P. Martyr, Dec. 3. ch. 5. p. 123. ch. 9. p. 142. Dec. 4. ch. 10. p. 173. Dec. 8. ch. 3. p. 288. In the Voyage du Brue dans Prevôt Hist. Gen. de Voyag. t. 3. p. 368. there is not only a description of the Manioc, and its use, but likewise an elegant engraving of the plant, and its mode of preparation.

¹ They chew a root they call Ava Ava, which fermenting by means of the saliva, produces a liquor very inebriating. Capt. Cook mentions his drinking this liquor with the natives, whom he saw prepare it. See his last Voyage, v. 1. p. 186.

In Schouten's and Le Maire's Voyage round the World, anno 1616. a similar liquor was prepared for them by the natives of Horn Island. At a banquet, at which two of the native princes were present, a company of men came in with a quantity of *Cana*, an herb of which they make their drink, and each of them having taken a mouthful, they for some time chewed it together, and then put it into a wooden trough, poured water upon it, and having stirred and strained it, presented this liquor in cups to their own kings, and very civilly offered some of it to the Dutch, who declined tasting of it. See Charlev. Hist. of Paraguay, t. 1. b. 4. p. 219.

the

the natives of Siberia, and Kamschatka", have each discovered the art of fermentation, or some method of intoxication *.

* These people prepare a liquor from a species of mushroom, which by fermentation becomes so active, that the urine of persons intoxicated by it, possesses an inebriating quality (*Hist. of Kamschatka*). This excretory fluid appears to possess signal virtues in the opinion of the *Hottentots*. See their Marriage Ceremonies in *Kolben's History of the Cape of Good Hope*, v. 1. ch. 13. p. 153. In some parts of India, the urine of a cow is esteemed the most sacred, and is particularly sought after for patients expiring under disease. *Picart's Relig. Ceremon.* v. 5. p. 28. in which there is an engraved plate, representing the manner of placing the patient under the cow's tail.

* Some tribes of American Indians, who are so deficient in knowledge, as to be unacquainted with the method of giving an inebriating strength to liquors by fermentation, can accomplish the same by other means. The people of the islands of North America, and of California, used for this purpose the smoke of tobacco, drawn up with a certain instrument into the nostrils, the fumes of which ascending the brain, they felt all the transports and frenzy of intoxication. *Oviedo Hist. ap Ramus.* v. 3. p. 113. *Venegas*, v. 1. p. 68. *Naufrag. de Cabeca de Vaca*, cap. 26. *Waser's Voyages*, &c. with a plate. Columbus, in his second voyage to the West Indies, remarked, that every cacique or prince had a detached temple set apart for the service of certain wooden images called *Cemies*, before which they performed several ceremonies, and prayed with great devotion. In each of these temples was a round table, on which was a certain kind of powder, which, being laid on the head of the idol, the devotee snuffed it up through a hollow cane, consisting of two branches, at the same time repeating a kind of jargon, which seemed altogether unintelligible; and by this powder he was immediately intoxicated. These images had different names, and some were in much higher reputation than others, so that a *Cemi* of character was frequently stolen. Some Spaniards once rushed into a temple, at which the idol began to cry aloud in the Indian tongue; the Christians, however, soon comprehended and discovered the trick, by kicking it down; when they perceived that it was supplied with a trunk, the farther end of which reached to a dark corner of the apartment, where a man lay concealed among boughs and leaves, and spoke what was dictated by the Cacique, who, now finding himself detected, earnestly entreated the Spaniards not to communicate the discovery to his subjects, as it would render it impossible

for him to keep them in obedience. Cortez, Hist. of New Spain, p. 203. Collection of Voyages, v. 1. p. 65. Tobacco was taken internally by most nations of the Americans, in such quantities, as to produce an inebriating effect. This was chiefly adopted by the priests, jugglers, and doctors, and, by throwing them into violent agitations, imposed upon the credulity of the people, as a species of inspiration. Similar agitations were practised by the ancient oracles and Sibyls, and have been continued to the present time with different religious sects, particularly very lately by the French prophets; and at this time in Wales, by a society called Jumpers. See Sophronikos, a Check to Enthusiasm, or an Answer to John Philadelphus, 1776. Athen. l. 9. p. 380. Acosta, Hist. Mor. de Indiis, lib. 5. cap. 26. Mœurs des Sauvages, t. 1. p. 333, 344, 382. et t. 2. p. 136. Lopes de Gomara, Hist. Univ. des Indes, l. 1. c. 27. Petr. Martyr. Nov. Orb. Dec. 1. l. 9. L'Abbé Lambert, Observat. sur les Mœurs, Coutumes, &c. t. 2. ch. 32.

The Othomacoas, a tribe seated on the banks of the Orinoco, employ a composition, which they call *Yupa*. It is formed of the seeds of an unknown plant, reduced to powder, and certain shells burnt and pulverized. The effects of this, when drawn up into the nostrils, are so violent, that they resemble madness rather than intoxication. Gumilla, Hist. Natur. v. 1. p. 286. Vide Martyr. Dec. 8. ch. 8. p. 303. Charlev. Hist. of Paraguay, v. 1. b. 7. p. 399. b. 9. p. 97. Wafer's Description of the Isthmus of Darien, p. 166. Opium is used by the Dervises in the East, in order to excite religious agitations. Tournefort's Levant, v. 2. l. 7. p. 342. Pocock's Travels, v. 1. p. 152. Picart's Religious Ceremonies, t. par. 2.

S E C T I O N VII.

O F M Y S T I C M E D I C I N E.

THE causes of superstition seem to have been the same in the rude state of all nations, proceeding either from a fond desire to pry into futurity, or to avert evils either suffered or dreaded. With respect to the first, the human mind, says a celebrated writer^y, is most apt to feel and to discover this vain curiosity, when its own powers are most feeble and uninformed. Astonished with occurrences, of which it is unable to comprehend the cause, it naturally fancies that there is something mysterious and wonderful in their origin. Alarmed at events, of which it cannot discern the issue or the consequences, it has recourse to other means of discovering them, than the exercise of its own sagacity. Whenever superstition is so established, as to form a regular system, this desire of penetrating into the secrets of futurity is connected with it. Divination becomes a religious act. Priests, as the ministers of heaven, pretend to deliver its oracles to men. They are the only soothsayers, augurs, and magicians, who possess the sacred

^y Robertson's, Hist. of America, v. 1. p. 389.

and important art of disclosing what is hidden from other eyes.

But among rude nations, continues the same author^z, who pay no veneration to any superintending power, and who have no established rites or ministers of religion^a; their curiosity to discover what is future or unknown, is cherished by a different principle, and derives strength from another alliance. As the diseases of men in the savage state are, like those of the animal creation, few, but extremely violent; their impatience under what they suffer, and solicitude for the recovery of health, soon inspired them with extraordinary reverence for such as pretended to understand the nature of their maladies, or to preserve them from their sudden and fatal effects. Those ignorant pretenders, however, were such utter strangers to the structure of the human frame, as to be equally unacquainted with the causes of its disorders, and the

^z Robertson's Hist. of America, v. 1. p. 390.

^a Frezier says, that the Indians of Chili have no religion; no temples or idols having been found among them, though divination is common among them, p. 58. Hennepin, the first discoverer of the river Mississippi, and who was long a resident among the North American Indians, declares that many tribes among them appear to have no religion. See also Nieuhoff, Church. Collect. v. 2. p. 132. Lettr. Edif. v. 2. p. 177. Robertson's America, v. 1. p. 381. Gem. Careri Voyage du Tour du Monde, t. 5. l. 1. chap. 6. p. 69. in his History of the Philippine Islands, and l. 2. ch. 2. p. 156. upon the same subject, and l. 3. ch. 5. p. 299. in his Description of the Marian Isles. Pernetty, Hist. d'un Voy. aux Isles Malouines, t. 1. ch. 6. p. 230. Boffu's Louisiana, v. 1. p. 198. Rech. Philosoph. v. 1. p. 287. v. 3. p. 139. Labrosse's Collection of Voyages, v. 1. p. 96. 445. v. 2. p. 33. Monboddo on the Origin and Progress of Language, v. 1. Loubere's Siam, p. 3. ch. 23.

manner in which they will terminate. Enthusiasm, mingled frequently with some portion of craft, supplied what they wanted in science. They imputed the origin of diseases to supernatural influence; and prescribed or performed a variety of mysterious rites, which they gave out to be of power sufficient to remove them. The credulity and love of the marvellous, natural to uninformed minds, favoured the deception, and prepared them to be the dupes of their imposture. Among savages, their first physicians are a kind of conjurers or wizards, who boast that they know what is past, and can foretell what is to come. Incantations, forcery, and mummeries of divers kinds, no less strange than frivolous, are the means they employ to expel the imaginary causes of malignity^b; and, relying upon the efficacy of these, they predict with

^b P. Melch. Hernandez, Memorial de Cheriqui. Collect. Orig. Pap. 1.

In Adair's History of the American Indians, we have a particular account of their manner of curing the sick; and the author relates a conversation he had with an old Indian physician, who told him, "that they had killed an old witch for having used destructive charms." Because a child was suddenly taken ill, and died, on the physician's false evidence; the father went to the poor helpless old woman, who was sitting innocent and unsuspecting, and sunk his tomohawk into her head, without the least fear of being called to account, p. 176, 177.

In the year 1765, an old physician or prophet, almost drunk with spirituous liquors, says this writer, came to pay me a friendly visit: his situation made him more communicative than he would have been if quite sober. When he came to the door, he bowed himself half bent, with his arms extended north and south, continuing so perhaps for the space of a minute. Then raising himself erect, with his arms in the same position, he looked in a wild frightful manner, from the south west

with confidence what will be the fate of their deluded patients. Thus superstition, in its earliest form, flowed from the solicitude of man to be delivered from present distress, not from his dread of evils awaiting him in a future life ; and was originally ingrafted on medicine, not on religion ^c.

toward the north, and sung on a low bass key, *Yo, Yo, Yo, Yo*, almost a minute, then *He, He, He, He*, for perhaps the same space of time, and then *Wa, Wa, Wa, Wa*, in like manner : he then transposed, and accented those sacred notes several different ways, in a most rapid guttural manner. Now and then he looked upwards, with his head considerably bent backward ; his song continued about a quarter of an hour. As my door, which was then open, stood east, his face of course stood towards the west ; but whether the natives thus usually invoke the Deity, I cannot determine, p. 176. Hennepin, an early writer, coincides with Adair in these particulars. See his Continuation of a New Discov. p. 67 and 68, and particularly at p. 82. et seq. wherein he gives a particular relation of their physicians and jugglers. See also P. Martyr, Dec. 1. l. 9. p. 52. Dec. 8. ch. 8. p. 305, 306. Charlev. Hist. Gener. de la N. France, t. 1. l. 1. p. 14. Journal Hist. d'un Voy. de l'Amer. t. 3. p. 219. 235. 347. 360 to 369. 425, 426. Hist. of Paraguay, v. 1. b. 4. p. 205. V. 2. b. 8. p. 95. Bossu's Louisiana, v. 1. p. 265. 300. and particularly Dêmeunier L'Esprit des Usages et des Coutumes, t. 3. liv. 17. p. 241. L'Abbé Poyart, l'Histoire de Loango, &c. agreeable to whose account, when the king of Cacongo happens to fall sick, his physicians begin by publishing his indisposition through the kingdom, and then every one is obliged to kill his dunghill cock. Comp. Religious Ceremonies by Picart, respecting the cock, v. 4. p. 2. 10.

^c Pliny says, that magic, the offspring of medicine, after having fortified itself with the help of astrology, had borrowed all its splendor and authority from religion, l. 30. c. 12. See also, l. 29. c. 1.

The Morabots among the wild Arabs are not less revered with them, than the Okkis and Monitous were with the Americans. See Voyages to Barbary for the Redemption of Slaves, p. 30. and particularly p. 4. 38. in M. Laugier de Toffi's Account of M. de Bourk's Captivity and Release.

In

In all unenlightened nations, the first rites or practices, which bear any resemblance to acts of religion, have it for their object to avert evils which men suffer or dread. Even among nations whose religious system was more enlarged, and who had formed some conception of benevolent beings, delighted with conferring benefits, as well as of malicious powers, prone to inflict evil; superstition still appears as the offspring of fear, and all its efforts were employed to avert calamities^d. They were persuaded that their good deities, prompted by the beneficence of their nature, would bestow every blessing in their power, without solicitation or acknowledgment; and their only anxiety was to sooth and deprecate the wrath of the

^d Oviedo, l. 3. c. 1. p. 3. P. Martyr, Decad. p. 102. The deities of Cozumel, Zempoala, Tlascala, Cholula, Mexico, and of other parts of America, were represented under the most horrible forms, and sacrifices of human victims were made to such beings. De Solis Conq. of America, loc. citat. Davis's History of the Caribbee Islands, pag. 284, et seq. Kolben's Cape of Good Hope, v. 1. ch. 8. pag. 104. and ch. 10. pag. 134.

Father Tachard assures us, in his *Voyages*, lib. 5. that the Siamese imagine the supreme judge of hell is eternally minuting into a memorandum book, kept for that purpose, the lives and actions of all mankind; and when he turns to the title page of any particular person's life, the page sneezes. And we, as they say, here on earth sympathetically sneeze with it: and from hence arose the custom of wishing long life and prosperity to the sneezer. In Germany and Holland, it is usual to move the hat upon such an occasion. Many of the Asiatics have the same custom. Taverner's *Voyages*, v. 3. The ancient Greeks looked on sneezing as something ominous and preternatural, and thereon pretended to ground their predictions. Beverovicium in *Epistolis Quæstionibus*. Picart's *Relig. Ceremon.* v. 5. p. 17.

powers,

powers, whom they regarded as the enemies of mankind^e.

I have

^e Most rude nations attribute to invisible beings whatever is superior to their sagacity. Hennepin, in his New Discovery of a large Country in America, affords many proofs of this amongst the Indians bordering upon the lakes. They called the breviary, which this missionary read in, an evil spirit, and it had like to have cost him his life. When they first saw guns, they termed them, iron possessed with an evil spirit. He adds, that he had an iron pot about three foot round. "This pot the Indians durst never so much as touch without covering the hands first in something of castor skin. And so great a terror was it to the women, that they had it hung abroad upon the bough of a tree; for they durst not come and sleep in the cabin when it was there. I would have made a present of it to some of their chiefs; but none of them would either accept or make use of it, because they thought that there was a spirit hid within, that would certainly kill them," p. 153, 154, 155. 172, 173.

Some tribes of Indians burn fires near their hammocks, which they imagine obviate the power of evil demons, and divinations have frequently been made by fire. Lafitau Mœurs des Sauvages, v. 1. p. 388.

With respect to what authors further relate concerning Okkis, Manitous, Autmoins, Cemis, Demons, Spirits, &c. Vid. Charlev. History of Paraguay, v. 2. b. 9. p. 99, 100. Journal, Hist. d'un Voyage de l'Amer. t. 3. l. 24. p. 345. l. 25. p. 390. Hist. Gen. de la Nouv. France, t. 1. l. 4. p. 145. l. 5. p. 224. l. 9. p. 394. So expert are these jugglers, that this missionary confesses, "Quelques missionnaires ont crue que plus d'une fois dans ces rencontres les prestiges de ces Charlatans avoient été accompagnés de l'operation visible du démon." Hist. Gen. de la Nouv. France, t. 1. l. 5. p. 224. See also Bossu's Louisiana, v. 1. p. 103. 163. 168. 191. 195. 261. and his entertaining Remarks and Experiments; and at p. 265, where his commentator, Dr. Forster, observes, that the heathen nations in the Russian empire have exactly such jugglers or conjurors as are found among some tribes of Indians. In the government of *Cazan* are the *Tcheremisses*, the *Tchuwashes*, and the *Wotiaks*, three nations; the first of which call their conjurors *Mushan*, the second *Yommas* or *Yymmas*, and the third *Tona* or *Tuno*; they are of both sexes, and make the same grimaces as the American jugglers. In *Siberia*, the *Tungusi*, the *Yakuti*, and the *Byrati*, call their conjurors *Skamans*, and they perform the same tricks, and make many antic gestures at their pretended conjurations.

The

The more we go east in Siberia, the more frequent are these kind of conjurers, and the more striking is the likeness between the savage inhabitants of North America, and the savage Nomadic nations of the north east parts of Asia. Comp. Kalm's Travels into N. America, 1st edit. v. 3. p. 126. Recherch. Phil. sur les Amer. v. 1. p. 142. Voyage en Sibérie contenant la Description des Mœurs et des Usages des Peuples de ce Pays, par M. Gmelin, Professeur de Chimie et de Botanique, &c. P. Martyr, Dec. 1. l. 9. p. 51. 53. Dec. 2. ch. 6. p. 80. Dec. 3. ch. 5. p. 124. ch. 7. p. 133. Dec. 7. ch. 9. p. 273. ch. 10. p. 277. Dec. 8. ch. 8. p. 306. ch. 9. p. 307. Speaking of the Cemís or Zemes, Martyr relates many diverting disputes between them, or the Devil, and the Virgin with the cross: the dispute was to be decided by binding the hands of two men behind their backs, and one of them calling upon the Virgin, the other upon the Cemís, to unbind their hands, the first who unbound them was to be counted the victor. "Sancta Maria," it seems, "forthwith appeared as a fayre virgin clothed in white, at whose presence the Devill vanished immediatly," and consequently lost the contest. The Indians, however, suspecting some intrigue in the affair, it was repeated in a more solemn and public manner, when "there appeared in the sight of them all, a Devill with a long taile, a wide mouth, great teeth, and hornes, resembling the similitude of the image (Cemís). As the Devill attempted to loose the bandes of his client, the blessed Virgin was immediately present, and with her rod loosed the bandes of her suppliant, which were agayne likewise founde fast tyed about the handes of him that stood for the contrary part." If such stories as these were credited by the wisest men in Europe in the 15th and 16th centuries, we cannot admire at the superstition of the ignorant Indians. Vid. Dec. 6. ch. 6. p. 80. In Dec. 7. ch. 9. p. 273. he says, "Infernall Devills were often seene in Hispaniola, but since the sacrament of the eucharist was used in the island, the Devills were no more seene, which familiarly used to shew themselves to ancient people in the night." See also Dec. 8. ch. 9. p. 307. where we find stories about the crosses, which also abound in all the writers about this period, and particularly by De Solís, in his Conquest of America. A crooked billet, which Cortes and his priest Olmedo stuck up at Zempoala and at Tlascala, as a cross, was attended with frequent and wonderful illuminations, which frightened even the martial Tlascalans. Dr. Chandler, in his Travels into Greece, mentions a similar instance of the credulity of the Greek Christians. "In the first year of our residence in the Levant," says he, "a rumour was current, that a cross of shining light had been seen at Constantinople pendant in the air over the grand mosque, once a church dedicated to St. Sophia; and that the Turks were in consternation at the prodigy, and had endeavoured in vain to dissipate the vapour."

I have introduced the sentiments of a celebrated historian ^f upon the present subject, as they exhibit a picture of the primeval state of most nations, when ignorance and superstition enveloped the mind, and influenced its operations, which, indeed, holds a course so regular, that in every age and country, the dominion of particular passions will be attended with similar effects. It is not therefore surprizing, that the cure of diseases, whose causes were attributed to invisible beings, should have been attempted by the aid of charms, amulets, and other species of magic, in the early periods of time. The practice was become

It was usual for persons, who could not write, to make the sign of the cross in confirmation of a charter. Several of these remain, where kings and persons of great eminence affix, *Signum crucis manu propria pro ignoratione literarum*. Du Cange, *Voc. Crux*, vol. 3. p. 1191. From this is derived the phrase of signing instead of subscribing a paper. Robertson's *Charles V.* vol. 1. p. 278. 8vo. See also Warton's *History of English Poetry*. Gabr. Naudé *Addit. à l'Histoire de Louys XI.* par Comines. Edit. de Fresnoy, tom. 5. p. 281, &c. See also p. 10.

In Purchas's *Pilgrimage* we meet with numerous histories of the visibility of the Devil; and of various leagues and compacts made with him openly. Philostratus, *de Vita Apollonii*, l. 4. speaks of a spirit, which metamorphosed itself into a woman, and married one Menippus Lycius, at which ceremony Apollonius was present (and "*Multum factum cognovere, quod in media Græcia gestum sit*"). Sabine, in his *Comment on the 10th of Ovid. Metamorph.* mentions a spirit, which was not only married, but had children. John Major, in the *Life of John the Monk*, that lived in the days of Theodosius, commends this monk for his singular clemency; but he adds, that the Devil turned himself into a market-girl, and, by certain allurements, at length overcame the monk's pious resolutions. See Winstanley's *Historical Rarities*, p. 214. with the examples and authorities.

^f Dr. Robertson's *America*, in loc. citat.

familiar in the ancient kingdoms of Chaldea, Babylon, Egypt and Persia, prior to the time of the sacred historian ^g: the colonies, which emigrated from these countries, carried this superstition with them; it proceeded along the coast of the ancient Phœnicia ^h, and from thence was extended to the coasts of Africa and Greece: in the latter, it appeared under the form of the Æsculapian superstition, and oracular aruspices; and in the northern parts of Europe ⁱ, under that of Druidism. From the northern extremity of the old, it passed to the northern extremity of the new continent ^k; and was thus extended over America, under the

^g Vide Exod. ch. 8. *et passim*.

^h Upon Phœnician Navigation, see a curious work, intitled, A General History of Discoveries and Improvements in useful Arts, published in numbers. Dr. Robertson has also given an Epitome of Navigation in the beginning of his America. A similar Epitome is given in Anderson's Chronological Deduction of Commerce, and in Prévot. Hist. Gener. des Voyages, tom. 1.

ⁱ Aufonius, Ode to Atticus Patera Rhetor. in Professorum Burdigalensium Commemoratione. Od. 10.

^k Respecting the communication of the new with the old continent, consult Robinson's America, v. 1. p. 278. Crantz, Hist. of Greenland, v. 1. p. 242. 244. 261, 262. Prevot, Hist. Gener. des Voyages, t. 15. p. 152. Adair's America, p. 13. Hennepin's Continuation, v. 2. p. 54. 118. Gage's New Survey, p. 162. Lafitau Mœurs des Sauvages, v. 1. p. 32. 90. Grot. Dissert. de Orig. Gent. Amer. Lescarbot, Hist. de la N. France, l. 1. c. 3. p. 21. Charlev. Hist. Gen. de la N. Fr. t. 1. l. 1. p. 20. Journal Hist. d'un Voy. de l'Amer. t. 3. De l'Origine des Amériquains, p. 1. to p. 43. Boffu, Louisian. v. 1. p. 181. 387. Kalm's Travels, v. 3. p. 125. Rech. Philos. sur les Amériq. v. 1. p. 3. p. 113. 13. 6. 170. 256. v. 2. p. 134. On the resemblance of the Jews and Americans, comp. Mœurs des Sauvages, vol. 1. p. 412. 487. v. 2. p. 369. Charlev. Journal Hist. t. 3. l. 24. p. 349. Forster's Translat. v. 2. p. 150. Rech.

the superstition of Chemis, Okkis¹, and of various^m divinities,

Rech. Philos. v. 2. p. 135. Lord Kaims's Sketches of the History of Man, Edit. 8vo. v. 3.

¹ Chemis, and Okkis, or the Ares-Koui, deities worshipped by the Indians, and particularly by the Hurons.

^m Cozumel was a deity much venerated by the Indians on the coast of South America, and gave name to the island of Cozumel. The idol bore the figure of a man, but of such an horrible aspect, as plainly discovered the original it was designed to represent. This circumstance of deformity was observable in all the idols worshipped by these people; and he that struck out the most hideous figure, was accounted the best workman. De Solis, in his Conquest of Mexico, l. 1. ch. 15. intimates, that the Devil appeared to them in some such shapes; the same is observed by Martyr, and other writers at this period. Cortez, who joined much religious enthusiasm with personal courage, in the heat of his zeal destroyed the idols in the temple of Cozumel, and erected an altar in it with a large cross at the entrance. He afterwards treated the idols of Zempoala in the same manner; and his zeal had like to have hurried him to a similar conduct at Mexico, had not the prudence of Olmedo prevented him from the attempt. Cambyfes, the conqueror of Egypt, with equal impunity, overturned the deities of ancient Egypt, and set at liberty their sacred animals. Many rude nations treat their own idols with equal severity upon certain occasions: an Ostiake, dissatisfied with his idol, abuses it, and then throws it into the fire; but if he be pleased with it, he caresses it, covers it with beaver-furs, and other skins, and places it in the most honourable part of his cabin. (Muller. Descript. de la Russie, par Strahlemberg). The negroes of Loango, when they invoke their deities in vain, burn them, using at the same time the most tantalizing reflections. (Voyages de Merolla). The Goths had a custom of shooting arrows at their deities, when they proved inauspicious to their requests. (Olaus Magnus. Hist. de Gentibus Septent.) In ancient voyages, and unfortunate events, the Roman Catholic sailors appear to have treated their tutelar saints with equal indignity, and St. Anthony has often been lashed and whipped for his unrelenting disposition.

The Americans had many other deities, which were supposed to preside over different departments, or were in different estimation in different provinces. Telcatlepuca was much venerated at Chalco near Mexico, it
was

vinities, many of whose rites ⁿ more or less resembled the ceremonies of the ancient world °.

There was one order of Magi ^p formerly in great
repute,

was a deity malignant and terrible, from whom they supposed plagues, sterility, and other chastisements of heaven to proceed. The city of Chalco was famous for necromancers and priests. De Solis Conq. of Mexico, l. 3. c. 8. Of this deity, and Vitzilopuchtli, Gage, who was a friar, and afterwards embraced Protestantism, gives an humorous account. See his New Survey, ch. 12. p. 117. Purchas's Pilgrimage, b. 8. ch. 13. p. 681. Tlalock, a god of war among the Mexicans, of deformed and horrible aspect. Viteilpuchtli, or Vitzilopuchtli, was another deity for war and murder; Tiazolteuli, the god of luxury; Ometochtli, the god of drunkenness; Eitruac, the god of air; Thalac, the god of water; Bacab, the deity who presided over infants; Chiripia, the mother of the gods, and of the earth, and many hundreds more. Vide Garcilasso Hist. des Yncas, v. 1. l. 2. c. 6. p. 137. They did not, however, equal the Grecian and Roman deities in number, which authors reckon to be not less than 40,000. Varro, according to Tertullian, makes three hundred of the name of Jupiter or Jove. Apolog. c. 14. See also Arnobius contra Gentēs, l. 4. p. 135.

ⁿ Adair's History of the American Indians, p. 80. 94. and particularly p. 172.

^o Vide Lafitau Mœurs des Sauvages, *passim*; and particularly upon Religion and Medicine. T. 1. ch. 4. p. 108. de la Religion; and t. 2. ch. 7. des Maladies et de la Medicine, p. 359. Robertson's America, upon initiating an hero, taken from Herrera, and described by many contemporary writers. Dissert. de l'Abbé Nadal, Mem. de l'Acad. des Inscript.

^p Sanchoniathon is the first historian who mentions Magus, by which is meant Chus, the father of those worshippers of fire, the Magi, and also of the genuine Scythæ, who were stiled Magog, apud Euseb. Præp. Evang. l. 1. c. 11. p. 36. Herodotus likewise mentioned Magus, as a priest of the sun, l. 3. c. 61. Confer. Lilius Gyraldus Syntag. 10. p. 572. Pausanias, l. 8. p. 624. The ancient Babylonians and Chaldeans were the first people stiled Magi; and were the institutors of those rites which

N n

related

repute ⁹, and both philosophers and persons of the greatest virtue thought it their highest honour to be initiated

related to Zoroaster. From them this worship was imparted to the Persians, who likewise had their Magi; and when the Babylonians sunk into a more complicated idolatry, the Persians who succeeded to the sovereignty of Asia, renewed under Darius the son of Hyftaspes these rites, which had been in a great degree neglected and forgotten. That king was devoted to the religion stiled *Magia*, and ordered it to be inscribed upon his tomb; (Porph. de Abstin. l. 4. p. 399.) and looked upon it as one of his most honourable titles to be called a professor of those doctrines. The Persians worshipped the sun under the title of *Zor-Aster*. They were at different æras greatly distressed and persecuted, especially upon the death of their last king *Yefdegerd*. Upon this account they retired into *Gedrosia* and *India*, and carried with them some shattered memorials of their religion in writing, from whence the *Sadder*, *Shaster*, *Vedam*, and *Zendavesta*, were compiled. The Magi at length grew into disrepute, in consequence of which they were by the Greeks called *απατεωνες* *φαρμακευται*, jugglers and conjurers; but the Persians of old esteemed them very highly. *Hesych. Mayoi.* *Suidas Mayoi.* *Dion. Chrysostom. Oratio Boryllthen.* p. 449. *Porphyr. de Abstin.* l. 4. p. 398. *Apuleii Florida,* c. 15. p. 793. l. 3. Hence it appears, that a *Magus* was a sacred person, a professor of theology, and a priest, devoted to philosophy, and the worship of the deity. Confer. *Moses Choronenfis*, l. 1. c. 5. p. 16. *Plutarch. II. et Osiris*, p. 369.

⁹ This which had recourse to the beneficent gods, was called *Theurgia*: those who were initiated were not allowed to have any intercourse with women, to eat any kind of animal food, or to defile themselves by the touch of a dead body. *Heliodor. Hist. Æthiop.* l. 3. *Pausanias* speaks of a temple for divination, which was in *Thresprotia*, where *Orpheus* came to recover his wife *Eurydice*. (In *Boeot.*) *Ulysses Travels*

Where in a lonely land, and gloomy cells,
The dusky nation of *Cimmeria* dwells;

Whither he went to consult the ghost of *Tiresias*. *Homer. Odyss.* l. 11. *Periander*, the tyrant of *Corinth*, visited the *Thresprotians*, to consult his wife about something left with her in trust. The *Lacedemonians*, it is said, having starved *Pausanias* to death, in the temple of *Pallas*, and not being able to appease his manes, which tormented them without intermission,
sent

initiated into its mysteries, from whence free-masonry^a was probably derived. Some of the Magi, however, degenerated into a most cruel idolatry, and became equally odious and contemptible^s: the apparatus of their ceremonies used by their professors, heightened the aversion which sober people had to this magic. The more subterraneous places were chosen preferably to others, the darkness of the night, the black victims which they offered, the bones of the dead, the corpses with which they were surrounded in the caves, the infants whose throats they cut to rake into their

sent for the magicians from Thessaly, who having brought up the ghosts of his enemies, they banished Pausanias's ghost so effectually, that it was obliged to quit the country. Saul went to consult the witch of Endor, who called up the ghost of Samuel, 1 Sam. c. 2. v. 11, 12. Confer. Bulengerus de Oraculis et Vatribus. Venerius de Oraculis et Divinationibus. Diod. Sicul. l. 1. sect. 6. l. 5. ch. 20. l. 15. c. 14. Picart's Religious Ceremonies, v. 4. par. 2. p. 2, et seq. Le Ventriloque, par M. de la Chapelle, 12. Paris 1772.

^a This I shall resume under the section of Æsculapius, this deity being the chief of the Cabiri, whose rites were preserved in Samothracia. It was visited by the Æsculapius of the Epidaurus, who was initiated into these mysteries, as well as Hercules, and other eminent characters. Vid. Herod. l. 2. Hierocl. Vita Pythag. Jamblichus, and other writers. These mysteries were preserved in many ancient temples under different names, though referable to the same object; in Egypt under the orgies of Isis and Osiris; of Bacchus, and the mother of the gods, in Thrace; of Atys and Cybele, in Phrygia; of Venus and Adonis, in Cyprus and Phœnicia; of Ceres, at Eleusis; of Diana, in Scythia; of Mithras, in Persia, &c. Lafitau Mœurs des Sauvages, t. 1. p. 266. Apuleius, lib. 11. Metamorp. de Mysteriis. Arnobii, l. 5. Vid. Bochart's Opera, under Ceres. Chandler's Travels into Asia Minor.

^s This kind of magic was called Goëtia: the professors of it were supposed to have correspondence with none but evil genii, and employed their operations only to do mischief. Vid. Heliod. Hist. Æthiop. l. 6.

entrails

entrails for an insight into futurity, all conspired to make it equally shocking and criminal^t.

Jamblichus^u says, that both of them equally employed words, to which they believed a certain virtue was annexed: sometimes the mere charm of their words wrought all the effect that was expected^x; sometimes it was necessary to add to them the composition of herbs; and there was always a necessity of observing exactly the time when the sacrifices were offered, the days, the hours, the aspect of the stars, the quality and number of the unhappy victims^y,
and

^t See sect. ii. and the notes.

^u Jamblich. de Myst. et Vita Pythag. quoted by Banier, whose authority I have adopted, v. 1. p. 429.

^x In the first section, p. 26. I have hinted at this kind of magic.

^y Of these sacrifices, none were esteemed so auspicious and salutary, as a sacrifice of the prince of the country. When the lot fell for the king to die, it was received with universal acclamations, and every expression of joy; as it once happened (Snorro Sturleson Ynglenga Saga, p. 18. Loccenii Antiq. Sueo-Gothicæ, l. 1. p. 5.) in the time of a famine, when they cast lots, and it fell to king Domalder to be the people's victim; and he was accordingly put to death. Olaus Tretelger, another prince, was burnt alive as an offering to Woden. (Ibid.) Bryant's Observations, p. 274.

Certain numbers were held in great veneration by the priests in very early antiquity. The Druids imagined there was something mysterious in the number nine, for which reason their bloody feasts and sacrifices were in some places celebrated every ninth year. (Erici Olai, Hist. Sueorum Gotherumque, p. 2.) In others every ninth month (Olaus Magnus, l. 3. c. 6. Antw. 1558.) and continued for nine days. In some places they sacrificed every year 99 persons to the god Swantowite (Dithman). After they were dead, they suspended them upon trees, and left them to putrefy. Adam Bremensis (de Situ Daniae, cap. 234.) mentions,
that

and other minutiae².

that in his time seventy carcases of this sort were found in a wood of the Suevi. See Bryant's Observations, p. 276.

Aune king of Sweden devoted to Odin the blood of his *nine* sons, to prevail on that god to prolong his life. At Upsal in Sweden there was a solemn sacrifice every *ninth* year. Then they chose among the captives in time of war, and among the slaves in time of peace, *nine* persons to be sacrificed. The ceremony generally concluded with feasting, in which they displayed all the magnificence known in those times. They drank immoderately; the kings and chief lords first drank healths in honour of the gods: hence came that custom among the first Christians in Germany, and the North, of drinking to the health of our Saviour, the Apostles, &c.. Mallet's Northern Antiquities places the origin of drinking healths in the time of the Anglo-Saxons, agreeable to Verstegan. The old health by historians reported to have been drank by Rowena (the daughter or niece of Hengest) to Vortigern king of the Britons, was after this fashion: She came into the room where the king and his guests were sitting; making a low obedience to him, she said, *Be of good health, Lord King!* then having drank, she presented it on her knees to the king, who (being told the meaning of what she had said, together with the custom) took the cup, saying, *I drink your health*, and drank also. View of the Manners, Customs, Habits, &c. The origin, however, of this custom, may be traced as early as the heroic age of Homer. The Egyptians had originally *nine* deities, which referred to the eight persons saved in the ark, and the Jonah or Dove. Some allusion to this was preserved in the Eleusinian mysteries, which were kept up in Samothracia, and spread into Phoenicia, by which it was probably disseminated into Europe under the Druidical superstition. This number is still preserved among the mystic ceremonies of the free masons. *Nine* was a number also used in ordeals, and upon many other occasions. See Purchas's Pilgrimage, b. 4. ch. 9. p. 338. Frequently, when the Tartars gained a battle, they filled *nine* sacks with the ears which they had cut off the slain. The emperor of China, in 1696, defeated a body of Calmucks, and the conquerors cut off the long hair of their heads, with which they filled *nine* sacks (Rech. sur les Egypt. t. 1.) When the Spaniards ravaged South America, the number 12 was sacred on account of the 12 apostles; and many of the Spaniards made vows to destroy 12 Indians every day in honour of the apostles.

² Pliny ridicules this superstition with some humour, when, after mentioning an herb, the throwing of which into the midst of an army, was sufficient,

The Druids ^a were likewise very much addicted to magic, and all the delusions which accompany it. But of all their superstitions, the most cruel was that which led them to sacrifice human victims to some of their gods ^b, a custom which could only be abolished by

sufficient, they said, to put it to the rout; he asks, where was this herb, when Rome was so distressed by the Cimbri and Teutones? Why did not the Persians make use of it when Lucullus cut their troops in pieces? Then resuming his serious air, he expostulates with Scipio for having drawn together such quantities of arms and warlike engines, since one single plant had been sufficient to open to him the gates of Carthage, l. 2. c. 4. Conf. Mœurs des Sauvages, v. 1. p. 382.

^a See Bryant's Mythology, v. 1. p. 284. v. 2. p. 471. v. 3. p. 535. Banier's Mythol. v. 3. p. 217 to 246. O'Halloran's History and Antiquities of Ireland, part 1. ch. 2. p. 6. and ch. 3. p. 16.

^b Before they consulted about the affairs of state, these people, as we are told by Strabo, and Diodorus Siculus, pierced a man behind with a poignard, and drew their omens from the manner in which he fell, and from the form of the wound. All prisoners of war were to be slain upon the altars, or to be shut up within apartments of osier, to be burnt alive to the honour of the gods.

Near the borders of the Rhine, when the Gauls suspected the fidelity of their wives, they obliged them to expose upon the river the children which they doubted to be theirs; and if they were swallowed up in the stream, the wife was punished with death as an adulteress: if, on the contrary, they floated above, and came back to their mother, who followed them along the bank, the husband, persuaded of her chastity, restored her to his confidence and love. The emperor Julian, from whom we learn this fact, says, the river God, by his discernment, avenged the injury that was offered to the marriage-bed. What a contrast of cruelty does this exhibit to the purposes of the humane society, instituted for the recovery of drowned persons! upon which occasion I must mention, in a particular manner, my worthy friends W. Hawes and Dr. Cogan, by whose attention principally this society has been the means of redeeming many useful lives. Were the river Thames, though less rapid than the Rhine, used in this manner, as the avenger of the injuries offered to the

by their total destruction ^c.

In temples, into which men were denied access, Druidesses presided, and regulated all that belonged to the sacrifices, and other ceremonies of religion. They were established in almost all the islands that are upon the Gallic coasts, and upon those that lie near England; yet so, that in those where Druids were, there were no Druidesses, and these solely possessed the rest ^d. The Druidesses were frequently consulted

the marriage-bed, it would probably be more resorted to than Doctors Commons. In some parts of Guinea, when the princes remove from the places of their residence, notice is given to the people; and no man is permitted to be connected with his own wife upon pain of death, till the prince's return, which is also announced to the public. This affords an opportunity for the female sex to accuse their husbands, when tired of them; as there is no appeal against their accusation on this subject. See the methods of discrimination by poison, practised by the negroes of Loango (*Rel. de Battell dans Prevôt, t. 4.*) by those of Angola (*Voyage de Merolla*) and of the natives on the coast of Coromandel (*Bekker, Monde Enchanté, l. 1. ch. 8.*) Methods for discovering innocence and guilt have been used, by water, fire, duels, &c. Moses speaks of the waters of jealousy, which swelled the body of the guilty person till it burst. See also *Hist. Crit. des Pratiques Superstitieuses du P. Le Brun, t. 2.* *Hamilton's Account of the East Indies. Memoires de l'Acad. des Inscript. t. 37. 4to.* *Picard's Religious Ceremonies. Colombiere, le Vrai Théâtre d'Honneur. Montesq. Esprit. des Loix, l. 28. ch. 17.* *L'Abbé Millot, Elémens d'Histoire Générale, seconde partie, 1773.* *Henry's History of Great Britain, v. 2.* *Critical Remarks on the Water Ordeal, by M. Ameilhon, in the Memoires de Literature, &c. vol. 37. 1767.* *Bosman's Guinea, Let. 19. p. 259. Let. 21. p. 452.* *La Loubere, t. 1. p. 247.* *Journal des Sçavans, 1676.*

^c In vain did the Roman emperors endeavour by bloody edicts to banish so barbarous a custom; it still continued, at least in some provinces of the Gauls, until the entire destruction of Druidism.

^d Banier, *Mythol. l. 6. c. 4.*

by

by the Roman emperors ; Alexander Severus ^e, Dioclesian ^f, and even Aurelian ^g, the patron of the celebrated Galen, had their fate predicted by them.

The

^e Severus setting out on that expedition, which was the last of his life, one of his priestesses came up to him, and said : “ My lord, do not hope for victory, and be on your guard against your own soldiers.” This prince was assassinated in that campaign.

^f Vopiscus in Numer. Banier, Mythol. l. 6. c. 4.

^g This emperor intending to consult some of them, to know if the empire would be long in his family, it is said, they answered him, that the family of Claudius was to be one day the most illustrious ; and indeed that of Aurelian did not subsist long.

The Goths believed some divine and prophetic quality to be inherent in their women ; they admitted them into their councils, and consulted them on the public business of the state. See the account of Ganna, a prophetic virgin of the Marcomanni, a German or Gaulish tribe, and of Villeda, another German prophetess, mentioned by Tacitus. London Review, vol. 7. p. 176. Critical Review, March 1778. Wood's Essay on the Genius and Writings of Homer.

The sources of the respect, however, paid to the women among the Germans, were their superior abilities for the management of domestic concerns. To them the education of the youth of both sexes was entrusted. Women are more disposed to rapture and devotion than men, and their curiosity to pry into futurity is more extravagant. The superstitious weaknesses of the sex, which, in refined times, are a subject of ridicule, lead to attention and reverence in a rude age. The German women were regarded as prophetesses ; they were thought to have something peculiarly divine in their nature, and the names of many of them are regarded, who were worshipped as divinities. To attend to the qualities of plants, and to the curing of wounds, was a branch of female occupation ; and their skill in these arts naturally conferred on them, in times of war and depredation, a very considerable degree of influence. They followed the army to the field of battle ; their captivity was reckoned the greatest misfortune that could happen ; and the stipulations of states were never so certainly secured, as when some virgins of rank were delivered

The Druids made some use of botany, but they mixed with it many superstitious rites: thus, in order to gather the plant called Selago, which is thought to be black hellebore, a knife was not to be used; it was to be plucked up with the right hand, which was to be covered with a part of the robe; then to be conveyed secretly into the left hand, as if it had been stolen; and lastly, as a necessary preparation, the person was to be clad in white, be bare-footed, and offer a sacrifice of bread and wine ^h.

delivered among the hostages. Monthly Review upon Stuart's View of Society, v. 58. p. 201. See also Blackstone's Commentaries. Lord Kaimes's Principles of Equity, and his Sketches. Millar's Observations on the Distinction of Ranks in Society. Strutt's Horda Angel-cynnan, § 1. Bosman's Guinea, and particularly of the Slave-coast, Let. 20. p. 384. in which we find that religion gives, even upon this coast, a superiority to the very women, who before were treated as slaves.

The ancient Lacedemonians, though continually employed in war, and unacquainted with arts and refinements, which they affected to despise, yet conferred on women advantages superior to what they enjoyed in any other Grecian republic: even while the Spartans were governed by such severe regulations, as monastic rigour has seldom ventured to impose, their wives lived in abundance and luxury. Aristotle pretends to account for the pre-eminence of the fair sex among the Spartans, from the warlike genius of that people. The love of war and of women, says he, always go together. The most warlike nations are always the most addicted to the pleasures between the sexes; and the ancient fable, which unites Mars and Venus, is not a chimerical invention of the fancy, but rests on the most solid foundation; and it is hence, perhaps, that the reigns of queens have mostly been distinguished by courage in the troops. See Gillies's Orations of Lysias and Isocrates (Aristot. Polit. book 2. p. 105. edit. Conrid.) in which the translator hath introduced many philosophical remarks upon this subject; and Forster's Observations made during a Voyage round the World.

^h Plin. l. 24. c. 11.

They never gathered vervain, a plant much used in magical operations, without mixing with it many superstitious ritesⁱ. It is still used in England as an amulet, in which character a gentleman, late of Halsted in Essex, frequently employed it.

Of all the ceremonies that were performed by the Druids, the most solemn was that of gathering the mistletoe, which they believed the gods had brought down from heaven for the felicity of men^k. Virgil has commemorated it in these elegant lines :

Quale solet sylvis brumali frigore *viscum*
Fronde virere nova, quod non sua feminat arbos,
Et croceo fœtu teretes circumdare truncos^l.

ⁱ It was to be gathered at the rising of the dog-star, and break of day, before the sun was up; and after offering an expiatory sacrifice to the earth, wherein fruits and honey were employed. By rubbing themselves with it, it was supposed to be possessed of the power of banishing fevers, of curing all sorts of maladies, and of reconciling the hearts of those that were at enmity. Plin. l. 25.

^k Plin. l. 16. c. 44. Moses mentions the hyssop, as an herb to be used in sacred rites, and as a kind of magic remedy for the leprosy. Exod. ch. 12. v. 22. Levit. ch. 14. v. 4, &c.

^l Æneid. l. 6. As when bleak winter binds the frozen skies,
Push'd from the oak, her *foreign honours* rise;
The lofty trunk th' adopted branches crown,
Graced with a yellow offspring not her own:
So with bright beams, all beauteous to behold,
Glow'd on the dusky trees the blooming gold;
The blooming gold, by ev'ry breath inclin'd,
Flam'd as it wav'd, and twinkled in the wind.

The

The Druids considered this plant as a specific against the epilepsy, apoplexy, and vertigo; they extracted also a water from it, which they deemed a remedy in all maladies. They collected the plant with superstitious veneration^m, which is not yet totally discontinued in some parts of this kingdom.

I might, indeed, have referred this subject to the History of Botany; but the religious rites with which these vegetables were gathered and applied, has induced me to class them here; under which head a thousand other charms might be introduced, which ignorance and superstition have inventedⁿ, either
when

^m The procession they made to the place where this precious plant had been discovered, was performed with great parade. The soothsayers went foremost, singing hymns and songs in the honour of the gods. Next came an herald with a rod in his hand, who was followed by three Druids, bearing the things necessary for the sacrifice. Last of all appeared the chief of those priests clothed in a white robe, and followed by a croud of people. When they were come to the place appointed, the chief of the Druids got upon the oak, and cut the mistletoe with a golden sickle. The Druids received it with great reverence into the sagum, or white cassock. Then followed the sacrifice of two white bulls, to which succeeded a feast; and prayers were put up to the gods, as Pliny tells us, to make this plant a means of communicating prosperity to those who should partake of it. This plant is much used in some parts of England at this day, in children's fits; and some practitioners in London still prescribe it. Mason, in his *Elfrida*, alludes to the reverence paid to the mistletoe:

There, where the spreading consecrated boughs
Fed the sage mistletoe, the holy Druids
Lay rapt in moral musings——

See also his *Caractacus*.

ⁿ All nations in a state of ignorance, have been devoted to the marvellous,

when the causes of diseases were unknown, or the means of curing them remained undiscovered. Hence have

vellous, and to place confidence in whatever was beyond their comprehension; it is hence, as I have before intimated, that the use of charms were in practice in the most early ages: they were known to the ancient Egyptians, and were certainly familiar to the Grecian bard, and have continued ever since among rude nations, in some mode or other, suited to the manners of the people: they are not yet extinct among the vulgar in the most civilized parts of Europe.

At this time the African priests or Marabouts carry on a considerable traffic in vending charms, which they term Grigris, and which are made to answer every contingency; to protect from thunderbolts and diseases; to procure many wives, and their easy deliveries; to prevent shipwreck in fishing, or slavery in war, as well as to ensure success in battle. The annexed plate, drawn from a crown or chaplet, designed to answer the last purpose, formerly belonged to a king of Brak near Senegal, who was killed in battle with this charm upon him. It is now in the princely collection of Sir Ashton Lever, who politely favoured me with a drawing of it; and being an unique, I judged it worthy of preservation.

Barbot, in the 5th chapter of the first book of his Description of Guinea, mentions Brak king of Senegal, and likewise particularly describes the Grigris common with the people (see also Prevôt, Hist. Gen. des Voy. t. 4. p. 146.) to which they are so devoted, that they part with any thing they have to purchase them.

The Grigris usually consist of a piece of paper, containing some passages out of the Koran, curiously folded up in linen, and artificially covered with the skin of some animal, or with scarlet or purple coloured cloth or leather, neatly stitched round the edges with leather, and sometimes decorated with shells, horns, or other ornaments. See the plate, with the references.

- A Purple coloured linen bands to tie the chaplet round the head.
- B The internal part of the chaplet, consisting of leather, to which the Grigris are fastened with leather thongs.
- C C Various Grigris of different sizes covered with hairy skin.
- D D Several



كَيْسُ الْإِبْرَاهِيمَ
 وَصَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ
 وَكَوْنُ الْإِبْرَاهِيمَ وَاسْتِغْرَافَهُ
 مِنْ جَمْدِهِمْ فِي نَارِ
 كَيْسٍ عَقَبَ كَرِيماً
 عَلَى قَوْمِهِ نَارِ الْإِسْمِ
 أَيْلَاسُ
 دُتْمُ كَمَنْ هُمْ نَارِ
 عَرَفَ الْوَسْطَى وَبِهِمْ
 وَهُوَ السَّيِّدُ عَلَيْهِ

have arisen the numerous charms for the cure of
hooping coughs °, agues, teething, convulsions, epi-
leptics,

- D D Several Grigris covered with scarlet cloth.
- E E Several Grigris covered with purple-coloured leather.
- F A Grigri covered with check-linen.
- G G The ends of antelopes horns, covered with scarlet cloth.
- H One of these covered with purple-coloured leather.
- I One of the largest Grigris of its natural size opened.
- K The linen folded within, containing, in the center,
- L A paper rolled up, with sentences out of the Koran, and unfolded at M, of which the following is a translation.

“ In the name of the merciful God ! Pray to God through our Lord Mohamed !

All that exists, is so only by his command. He gives life, and also calls sinners to an account. He deprives of life by the sole power of his name : these are undeniable truths. He that lives, owes his life to the peculiar clemency of his Lord, who by his providence takes care of his subsistence. He is a wise Prince or *Governor*.”

In some of the Grigris a piece of rotten wood, about the size of L, has been found.

N The stitching of the leather round the Grigri.

Two others of these Grigris have been opened ; one contained the 112th chapter of the Koran ; and the other, various passages out of the same book, and particularly the following, addressed to the Deity : “ Thou art my master, and hast made me a ruler, and powerful over all people and nations.” These Grigris were probably made in imitation of the phylacteries of the Jews, which were rolls or slips of parchment, with some sentences of Scripture writ on them, agreeable to the command, “ to bind them for a sign upon their hands, and to be as frontlets between their eyes.” Deut. vi. ver. 8. There was not a Jew but wore them, and the Pharisees much larger than others, through an hypocritical affectation. Matth. xxiii. ver. 5. They continue to this day in general use.

° A common method of treating this disease, is to enquire of the first person, who is met upon a pye-balled horse, what is good for it ; and whatever is recommended is esteemed a specific. See note, p. 18. An acquaintance of mine, who once went a journey on a pye-balled horse, was so frequently interrupted by questions about this disease, that he assured me

lepfies^p, and many other diseases; as well as for
the

me it was with no little difficulty he passed through some villages. He generally silenced their importunities, by recommending a toast in brandy.

No disease has given rise to a more numerous and curious catalogue of charms than Agues. A common practice is, to run nine times through a circle formed by a brier that grows naturally in that direction. The process is to be repeated nine days successively. This is a Druidal ceremony, nine is a mystic number of high antiquity. See note, p. 140. A spider given, unknown to the patient, is a favourite remedy with some persons. Others are equally partial to the snuff of a candle.

Many families of reputation continue the use of charms in Teething; chiefly in the form of beads to wear round the neck of the infant. These amulets are daily advertised in the public papers; and the proprietor pathetically exclaims, "What mother can forgive herself, who suffers her child to die without an anodyne necklace!"

Many charms are also employed for the cure of the tooth-ach; and, among others, that of extracting a worm from the diseased tooth is a profitable source of deception. A celebrated female in the city is at this time raising considerable contributions upon the public credulity, by extracting *this worm*: to effect this, she keeps the eggs of the silk moth, which by artificial heat she hatches in all seasons, and the insect at its first appearance resembles a small worm, which she artfully exhibits after using certain manual operations; and as the animalcule appears alive, it convinces the patient of the efficacy of the art: it may perhaps effect a cure by the power of imagination in the same manner, as the Indian jugglers cure their patients, by appearing to pull out the disorder, and then exhibiting a bone, or any other substance, which they pretend to have extracted from the diseased part.

For cramps, a ring is frequently worn upon the finger of the person liable to this complaint. To possess any virtue, it is necessary that the ring should be made of some metal taken by stealth, without discovery: for the same purpose, the patella of a sheep is worn by persons troubled with cramps. This bone is usually called the cramp-bone. The great Boyle recommends for certain diseases "a little bag hung about the neck, containing the powder made of a *live* toad, burnt in a *new* pot." In the same essay he recommends different methods and charms for obviating the effects of witchcraft. Boyle's Works, v. 2. part 2. Essay 5. p. 159, 160. and v. 6. p. 58, and 640. which is very curious.

^p The various names under which the epilepsy has been distinguished,
are

the prevention of some^q, which still continue in use among uninformed minds, with as much veneration as the royal touch^r was formerly admitted for the cure of scrophulous diseases^s, which from thence obtained the name of the king's evil.

Indeed, we can no longer wonder at the credulity

are explained by Van Swieten, in his Commentaries, v. 3. p. 391. Numerous are the remedies which have been suggested for curing this disease. A very frequent remedy among the common people about London, and particularly in Essex, is to cut the tip of the tail of a black cat, in order to procure three drops of blood, which are to be taken in a spoonful of milk from a woman's breast, and repeated three days successively. If the patient be a male, the woman from whom the milk is procured must have lain in of a girl; and the contrary, if the epileptic person be a female. If the patient be informed of the composition, it loses its efficacy. I have met with three instances, wherein this method of treatment has been recommended within the space of a fortnight.

For a similar intention, the patient is to creep with the head foremost, down three pair of stairs, three times each day, for three days successively; three is the root of the mystic number nine, and is still in high esteem in free masonry.

^q One of the most expensive impositions of this kind is advertised by Dr. Dumoulin, which he calls Sachets Anti-varioliques, at two guineas each bag. They are said to prevent infection from the small-pox; for which purpose they are to be hung round the neck, and recline upon the *breast* in *men*, and upon the *navel* in *women*. At night it operates through the pillow, under which persons of both sexes are then recommended to place the Sachets Anti-varioliques. Like Dr. Hill's Tincture of Sage, it obviates old age. They are sold at N^o 57, Queen Ann Street, East. Comp. Boyle's Works, v. 6. p. 168.

^r This begun in the time of Edward the Confessor, about the middle of the 11th century.

^s Wiseman, serjeant-furgeon to King Charles, wrote professedly in favour of the royal touch.

of

of illiterate persons, when men of liberal education adopt the most absurd opinions, and attempt to sanctify them by the authority of their names. The credulity of Pliny ^t may be excused ; but when Fulgofus ^u, Amatus Lusitanus ^w, Paræus ^x, and Donatus ^y, in the
15th

^t Pliny, and some other ancient writers, tell us of women among the Romans, who were turned into men, l. 7. c. 4. p. 158. Liv. Hist. l. 4.

^u Fulgofus relates, that when Ferdinand the First was king of Naples, Ludovicus Guarna, a citizen of Saleine, had five daughters ; of whom the two eldest were called Francisca and Carola, and both, at fifteen years of age, found such alteration in themselves, that they changed their feminine habits, and names also, the one being called Franciscus, and the other Carolus. Fulgof. l. 1. Obs. p. 187.

^w A noble Portuguese, named Maria Pacheca, changing into a young man, altered her habit, and called herself Manuel Pacheca, who afterwards made a voyage into the Indies, became a valiant soldier, attained to much wealth and honour, and returning, married a lady of a noble family, but never had any issue. Amat. Lusitan. Conf. Med. Cent. 2. Curat. 39.

^x In the city of Rheims in France, an. 1560, a female, at the 14th year of her age, shewed signs of the other sex, which when her parents were informed of, by the interposition of ecclesiastical authority, her name was changed from Joan to John ; and from thenceforth she wore the habit of a man. Paræus, l. 4. c. 5. Schenck. Obs. l. 4. p. 503.

At Vitriac in France the same author relates, that at the age of 15, German Garnier became a man ; and the whole matter being represented to the Cardinal Bishop of Lenuncurium, he called an assembly, where this person received the name and habit of a man. Paræus, *ibid*.

^y Donatus relates, that in the year 1574, in the city of Spoleto, a girl of 18 years of age was changed into a man, as divers of that place can witness. De Hist. Mir. l. 6. p. 298.

See similar instances by Cuelmanus Sch. Obs. Med. l. 4. Ob. 6. p. 509. Anton. Diuna relates the case of a client of his, who, after changing her sex,

15th and 16th centuries, disgrace their professions, and science in general, with incredible metamorphoses of sexes, we may overlook the artifices of sibyls², aruspices, soothsayers, astrologers, and other impostors in primeval ages^a. At the conclusion even of the 16th century, Donatus, a medical writer of some reputation, relates the case of a woman, who, after she had been delivered of a son, became a man^b. Turner^c, who relates this story in his History of remarkable Providences, shews some hesitation in admitting its validity. It is, however, so much in point with the case of a celebrated Chevalier, that it is wonderful it has never been exhibited as a precedent.

It would be tedious to enumerate here all the examples of magic divination, judicial astrology, and sorcery^d, which spread from Assyria through Greece, and

sex, was tried for committing a rape. John Choker. Fax. Hist. Cent. 1. cap. 23. See also Ausonius, Batholinus the Anatomist, and Burnet; and Turner, in his Remarkable Providences, p. 15.

² Banier's Mythol. v. 1. p. 361. et seq.

^a No modern impostors have been more successful than water conjurers, with which this nation still abounds.

^b This was supposed to have happened, an. 1496; it is told by Pontanus, and confirmed by Antonius Calotius the Umbrian.

^c William Turner, M. A. Vicar of Walberton, Essex.

^d Frid. Hoffman concludes his excellent chapter, De Diaboli Potentiâ in Corpore, in the following words: " Neque dubitamus, fore, ut in posterum,

R. r

and most parts of the world, and was adverted to in a particular manner by an ancient inspired writer^c. But now, the influences of the planets are no longer suspected of determining our actions; the sign of the ram does not preside over the head; the bull over the stomach; the twins over the breast; the scorpion over the intestines; the fishes over the feet; and similar extravagancies. Infinite Wisdom has not permitted us to scrutinize into futurity:

Prudens futuri temporis exitum
Caliginosa nocte premit.

HOR.

In what deep melancholy, says Cicero, would Priam have spent the remainder of his life, had he known the lamentable fate that awaited him! Would the three consulships, the three triumphs of Pompey, have made him sensible of the smallest impression of joy, had he been capable of foreseeing what we ourselves are even unable to mention without shedding a flood of tears, that on a day, after the loss of a battle, and the total defeat of his army, he should be slain in the deserts of Egypt? And what would Cæsar

posterum ejus potentia ludibriaque magis magisque evanescant. Clarior enim lux veritatis ubique in animis hominum cœpit exsplendescere, florent artes et scientiæ, rationis cultura ubique accuratissimè suscipitur." Tom. 5. See also his References. Banier's Mythology, v. 1. p. 424. Potter's Grecian Antiquities, and Kennett's Antiquities of Rome; particularly Potter on Love Magic.

^c Isaiah, ch. 47. ver. 13.

have

have thought, if he had known, that in the midst of that very senate, which he had filled with his friends and creatures, near the statue of Pompey, and in sight of his guards, he should be stabbed with wounds from his best friends, and his body be abandoned by all the people of Rome? We may hence say, *Certe igitur ignoratio futurorum malorum melius est, quam scientia* ^f.

^f Cicero de Diis, l. 2.

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